

INFORMATION BOOKLET

NORANDA MINES LIMITED

ORCHAN MINES LIMITED

MATTAGAMI LAKE MINES LIMITED

*The information contained in this Information Booklet is supplemental
to the information provided in the Information Circular.*

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NORANDA MINES LIMITED

The Company

Noranda Mines Limited is the continuing company resulting from the amalgamation in 1964 under the laws of Ontario of Noranda Mines, Limited, which was incorporated in 1922, and Geco Mines Limited, which was incorporated in 1953. Its head and principal office is at Commerce Court West, Toronto, Ontario, Canada. The shares of Noranda Mines Limited are listed on the stock exchanges of Toronto, Montreal and Vancouver. Noranda Mines Limited is referred to in this section of the Information Booklet as the "Company" and together with its subsidiaries is referred to as "Noranda". In addition, Noranda has substantial investments in other companies which are referred to as "associated companies".

Business of Noranda

Noranda and its associated companies are engaged in three major areas of business: mining and metallurgy; manufacturing; and forest products. They are major producers of copper, molybdenum, gold, silver and lead and are the world's largest mine producers of zinc. Noranda smelts and refines much of its own mine production. Manufacturing operations in Canada primarily consist of processing metals produced by Noranda into wire and cable and other products for use by industry; and in the United States manufacturing operations primarily consist of aluminum production and fabrication of aluminum building products. Noranda and its associated companies are among the largest producers of forest products in Canada, producing lumber, plywood and pulp and paper. Noranda is also engaged in oil and natural gas exploration and production in western Canada and exploration in the Arctic.

Noranda is also in the business of smelting and refining copper concentrates produced by 21 other mining companies including seven associated companies. Noranda markets its own production as well as mine and metal production of 21 other companies including eight associated companies.

The major end-use markets for copper are the electric utility, telephone, automobile and construction industries. Substantially all of Noranda's mine production of copper is processed by its manufacturing subsidiaries and is sold in North American markets. The copper production of Noranda's associated companies is sold in North American and overseas markets. The major end-use markets for zinc are the construction and automobile industries. The zinc metal produced by Noranda and its associated companies is sold primarily in North America while zinc concentrates not converted into metal are sold to European, Japanese and United States' smelters. Noranda also produces significant quantities of aluminum.

The forest products produced by Noranda and its associated companies consist of lumber and other building products sold to the construction industry mainly in Canada and the United States and pulp, newsprint and publication and fine papers sold primarily in the United States.

The business of Noranda and its associated companies is cyclical. Fluctuations in the general level of economic activity in the western world influence the demand for and prices of the various products produced by these companies although the cycles for individual products may be at different phases at any time. Because a substantial portion of Noranda's production is sold in export markets, fluctuations in the value of the Canadian dollar relative to other currencies have a significant effect on Noranda's earnings.

Consolidated Divisional Results

The consolidated divisional results of Noranda for the five years ended December 31, 1977 and the nine months ended September 30, 1978 and 1977 were:

	Nine months ended September 30,		Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited—in thousands)		(in thousands)				
REVENUE FROM METALS, PRODUCTS AND CUSTOM TOLLS:							
Copper mining, smelting and re- fining operations (1).....	\$ 267,739	\$ 227,235	\$ 309,598	\$ 321,413	\$ 294,460	\$ 394,560	\$ 327,890
Other mining and metallurgical operations.....	357,278	311,669	419,794	340,197	371,582	339,130	229,638
Total mining and metallurgical operations.....	625,017	538,904	729,392	661,610	666,042	733,690	557,528
Manufacturing operations.....	594,917	511,448	704,528	575,268	540,304	563,961	438,798
Forest products operations.....	522,760	401,837	552,364	489,814	372,664	365,126	253,889
Gross revenue.....	1,742,694	1,452,189	1,986,284	1,726,692	1,579,010	1,662,777	1,250,215
Less: Sales between divisions....	80,000	54,000	127,000	99,000	85,001	170,023	102,709
Sales by associated com- panies (2).....	429,148	335,823	472,768	395,298	337,586	345,713	298,961
Total revenue.....	<u>\$1,233,546</u>	<u>\$1,062,366</u>	<u>\$1,386,516</u>	<u>\$1,232,394</u>	<u>\$1,156,423</u>	<u>\$1,147,041</u>	<u>\$ 848,545</u>
EARNINGS:							
Copper mining, smelting and re- fining operations (1).....	\$39,849	\$20,311	\$ 37,047	\$ 45,824	\$ 32,402	\$ 80,037	\$ 46,259
Other mining and metallurgical operations (3).....	30,570	22,536	31,083	24,503	40,793	66,749	67,403
Earnings from mining invest- ments.....	1,023	898	3,906	1,601	1,447	1,816	1,117
Gross mining and metallurgical earnings.....	71,442	43,745	72,036	71,928	74,642	148,602	114,779
Less exploration written off net of applicable tax reductions.....	7,605	12,931	16,631	10,307	17,889	14,396	7,673
Net mining and metallurgical earnings.....	63,837	30,814	55,405	61,621	56,753	134,206	107,106
Manufacturing operations and investments (3).....	12,465(4)	21,391	30,531	10,611	23,286	39,337	23,233
Forest products operations (3)...	47,272(5)	20,392	31,077	19,224	11,232	11,317	15,005
Earnings before common costs...	123,574	72,597	117,013	91,456	91,271	184,860	145,344
Less: Corporate office costs.....	6,820	8,523	11,642	10,773	10,315	9,866	7,512
Interest expense net of revenue.....	44,294	45,730	67,372	59,235	44,036	32,496	23,599
Unallocated research costs.	1,383	1,186	4,220	1,471	1,423	1,072	982
Less applicable tax reduc- tions.....	(9,399)	(19,981)	(33,397)	(26,758)	(15,028)	(13,444)	(8,143)
Total common costs.....	43,098	35,458	49,837	44,721	40,746	29,990	23,950
Earnings.....	\$ 80,476	\$ 37,139	\$ 67,176	\$ 46,735	\$ 50,525	\$ 154,870	\$ 121,394

NOTES:

- (1) Consists of operations of the Geco, Bell Copper and Horne mines, the Noranda smelter, Mines Gaspé and Canadian Copper Refiners Limited. The Horne mine ceased operations in 1976.
- (2) Gross revenues include Noranda's share of the revenues of associated companies accounted for on an equity basis. The share included is as follows:

	Nine months ended September 30,		Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited—in thousands)		(in thousands)				
Mining and metallurgical.....	\$ 121,969	\$ 110,270	\$ 145,578	\$ 123,875	\$ 121,782	\$ 126,338	\$ 122,377
Manufacturing.....	96,886	75,388	112,220	95,983	98,517	85,736	50,248
Forest products.....	210,293	150,165	214,970	175,440	117,287	133,639	126,336
	<u>\$ 429,148</u>	<u>335,823</u>	<u>\$ 472,768</u>	<u>\$ 395,298</u>	<u>\$ 337,586</u>	<u>\$ 345,713</u>	<u>\$ 298,961</u>

- (3) The net earnings include Noranda's share of earnings of associated companies accounted for on an equity basis.
- (4) Includes abnormal costs of \$11,718,000 from the aluminum plant shutdown.
- (5) Includes \$11,265,000 gain on sale of sawmills.

Noranda's earnings reached a cyclical low in late 1975 and early 1976. Earnings of \$67.2 million in 1977 were improved over results in 1976 and 1975 but remained at unsatisfactory levels as a result of the uneven, sluggish economic recovery in the industrialized world, cost inflation and low prices for zinc and copper. Earnings during the first nine months of 1978 were \$80.5 million compared to \$37.1 million during the first nine months of 1977 despite abnormal costs of \$11.7 million after tax related to a two month shut-down of the Noranda Aluminum smelter referred to below. Including a non-recurring gain of \$11.3 million on the sale of two sawmills, earnings during the third quarter of 1978 were \$36.8 million compared to \$4.9 million during the third quarter of 1977.

Prices of base metal products which have been at low levels in relation to operating costs have improved but remain low in relation to the cost of constructing new facilities. World inventories of zinc and copper which have been at high levels are decreasing and prices have started to increase. Since 1974 mine production of most products has been maintained at near normal levels, although temporary shut-downs of several mines operated by Noranda and its associated companies in 1978 have reduced production of zinc and, to a lesser extent, copper. In 1978 copper refinery operations have continued at about 80% of plant capacity while zinc refinery operating levels which had been reduced to about 70% of plant capacity will be about 78% for the year.

The results of Noranda's manufacturing operations in Canada have been adversely affected by both the slow growth and the high cost structure of the Canadian economy. Improvements in results began in 1977 and continue, reflecting Noranda's intense efforts to rationalize product lines and production facilities. The results from manufacturing operations in the United States were very strong in 1977 reflecting the high level of activity in the housing and aluminum markets and the expanded production of the aluminum reduction plant. Results to date in 1978 have been depressed by the two-month shut-down of the aluminum plant due to the failure of the local utility to supply power during the last stages of the United States coal strike.

Noranda's forest products operations have had record profits in recent quarters. Lumber markets have been very strong reflecting the high level of housing starts in the United States; paper and newsprint markets have been good reflecting the overall level of the United States' economy; pulp markets have improved in response to higher demand and lower inventories.

The decline in value of the Canadian dollar since 1976 has had a generally favourable impact on Noranda's results. It has enhanced realizations from export sales and improved the competitive position of Canadian manufacturing operations in domestic and export markets, but has increased the cost of equipment, supplies and borrowing due to the revaluation of short-term foreign currency debts.

Due to the low level of earnings and cost inflation, capital expenditures continue to be limited to essential items and to programs which have previously been committed. In 1977 the expansion of the Brunswick mine was rescheduled in the face of deteriorating zinc markets and the only major projects currently in progress are Fraser Companies' modernization programs, continuation of the oil and gas exploration and development program managed by Canadian Hunter and the acquisition of an aluminum casting, sheet and foil plant by Noranda Aluminum.

Mining

The Company's principal mines and mining subsidiaries are the Geco mine, the Bell Copper mine, Mines Gaspé, Brunswick Mining and Smelting Corporation Limited, Brenda Mines Limited and Central Canada Potash Co. Limited. In addition, Noranda has interests in associated companies engaged in mining as described under "Associated Mining Companies".

Geco Mine (wholly-owned)

The Geco mine located at Manitouwadge in northwestern Ontario is a copper-zinc-silver producer which was brought into production in 1957. Ores are treated at the concentrator at the mine which has a capacity to treat over 5,000 tons per day.

The following table shows the production of the Geco mine for the five years ended December 31, 1977:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Ore milled (tons)	1,754,000	1,686,000	1,599,000	1,827,000	1,464,000
Average grade:					
Copper (%)	1.94	1.69	1.84	1.72	1.70
Zinc (%)	2.62	2.55	3.54	4.74	4.53
Silver (ounces per ton)	1.22	1.29	1.44	1.55	1.63
Metal content of concentrates produced					
Copper (tons)	31,700	26,300	27,400	29,200	22,900
Zinc (tons)	34,800	32,500	44,500	71,000	54,500
Silver (ounces)	1,581,000	1,599,000	1,680,000	2,058,000	1,684,500

All of the copper concentrate produced at the Geco mine is treated in the Noranda smelter at Noranda, Quebec, and all of the zinc concentrate is treated in the zinc reduction plant described below.

Ore reserves of the Geco mine at December 31, 1977, as estimated by the Company, were 25,600,000 tons with an average grade of 1.88% copper, 3.73% zinc and 1.53 ounces of silver per ton.

Bell Copper Mine (wholly-owned)

The Bell Copper mine and a 13,800 tons per day concentrator located at Babine Lake, British Columbia have been in operation since October, 1972. Production for the five years ended December 31, 1977 has been as follows:

	Years ended December 31,				
	1977	1976(1)	1975	1974	1973
Ore milled (tons)	4,860,000	2,051,000	4,800,000	4,500,000	4,114,000
Average grade of copper (%)	0.43	0.43	0.46	0.52	0.59
Copper content of concentrate produced (tons)	17,500	7,300	18,150	20,800	20,300
Gold content of concentrate produced (ounces)	23,000	9,500	23,760	28,700	25,200

(1) A strike halted operations from early February until the end of August.

An agreement has been reached to sell the Bell Copper mine and concentrator to Granby Mining Corporation, subject to approval of the sale under the Foreign Investment Review Act (Canada), for a price of \$22 million plus working capital plus up to an additional \$3 million contingent upon the satisfactory expansion of the concentrator's capacity by Noranda. The copper concentrate produced at the Bell Copper mine has been treated at the Noranda smelter at Noranda, Quebec and, as part of the agreement with Granby Mining Corporation, will continue to be treated there.

Ore reserves of the Bell Copper mine at December 31, 1977, as estimated by the Company, were 24,990,000 tons with an average grade of 0.492% copper and 0.012 ounce of gold per ton.

Mines Gaspé (wholly-owned)

Mines Gaspé, a division of Canadian Copper Refiners Limited, has two copper mines and concentrators with a capacity of 33,000 tons per day at Murdochville, Quebec. The Needle Mountain mine has been in production since 1955 and the Copper Mountain mine has been in production since 1968. Copper concentrate produced at these mines is treated at the Gaspé smelter described below. A program to expand production from the Copper Mountain mine and the smelter was substantially completed in 1974. While start-up and operating difficulties in the expanded facilities have been substantially overcome, Mines Gaspé remains a relatively high cost, low grade operation. Improved efficiencies reduced losses in 1977 to approximately \$3 million; however, the company is still trying to overcome problems with the leaching of oxide ore. A strike by the Mines Gaspé employees began October 17, 1978 and has shut down the operations at Mines Gaspé's facilities.

The following table shows the production of the Needle Mountain and Copper Mountain mines for the five years ended December 31, 1977:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Needle Mountain					
Ore milled (tons)	1,376,000	1,574,000	1,245,000	1,181,000	1,155,000
Average grade of copper (%)	1.13	1.20	1.19	1.09	1.04
Copper content of concentrate produced (tons)	15,080	18,300	14,100	11,530	11,400
Molybdenum content of concentrate produced (pounds)	463,000	357,000	82,000	13,000	123,000
Copper Mountain					
Ore milled (tons)	10,807,000	10,705,000	9,749,000	9,304,000	5,574,000
Average grade of copper (%)	0.46	0.43	0.44	0.55	0.54
Copper content of concentrate produced (tons)	40,025	37,100	34,100	39,800	22,730
Molybdenum content of concentrate produced (pounds)	1,830,000	809,000	231,000	42,000	154,000

Mines Gaspé estimated that the mineral inventories at December 31, 1977 were 12,291,000 tons of sulphide material averaging 1.15% copper at the Needle Mountain mine and 182,061,000 tons of sulphide material averaging 0.38% copper and 29,945,000 tons of oxide material averaging 0.44% copper at the Copper Mountain mine.

Brunswick (64.1% interest)

Brunswick Mining and Smelting Corporation Limited operates two mines, known as the No. 12 mine and the No. 6 mine located near Bathurst, New Brunswick, which produce ores containing zinc, lead, silver and copper. The concentrator has three separate circuits, each of which is capable of treating ore from either mine to produce separate zinc, lead and copper concentrates as well as a lead-zinc concentrate. Combined capacity is 9,850 tons of ore per day. In 1974 Brunswick undertook a program to expand the No. 12 mine production capacity from 7,500 to 11,000 tons per day at an estimated cost of \$53 million. In order to maintain a stable financial position during a period of depressed prices for zinc, the expansion project has been cut back. It was decided to complete the new shaft only to the 3,700 foot level rather than the 4,500 foot level previously planned. The capital expenditures on this expansion to December 31, 1977 were \$38.6 million. The open pit at No. 6 mine has been closed and ore is only being mined from its underground reserves which are expected to be exhausted in 1979.

The following table shows the production from these mines for the five years ended December 31, 1977:

	Years ended December 31,				
	1977	1976	1975	1974	1973
No. 12 mine:					
Ore milled (tons)	2,708,000	1,624,000	2,185,000	1,561,000	1,853,000
Average grade:					
Zinc (%)	8.70	8.62	8.48	8.00	8.58
Lead (%)	3.51	3.52	3.54	3.58	3.43
Copper (%)	0.31	0.32	0.36	0.35	0.34
Silver (ounces per ton)	2.66	2.80	2.66	2.60	2.80
No. 6 mine:					
Ore milled (tons)	747,000	853,000	1,242,000	1,047,000	1,435,000
Average grade:					
Zinc (%)	4.65	4.41	4.94	4.65	4.98
Lead (%)	1.70	1.60	1.93	2.03	2.02
Copper (%)	0.58	0.50	0.50	0.41	0.35
Silver (ounces per ton)	1.79	1.98	1.98	1.90	2.20
Metal content of concentrates produced (tons):					
Zinc	216,400	133,000	184,000	134,000	176,000
Lead	69,300	41,000	60,000	41,000	58,000
Copper	4,300	4,000	6,000	4,000	4,000

Brunswick estimated its ore reserves at December 31, 1977 as follows:

	Tons	Grade			
		Zinc (%)	Lead (%)	Copper (%)	Silver (ounces per ton)
Zinc-lead ore					
No. 12 mine:					
Proven	70,656,000	9.15	3.69	0.30	2.78
Probable	36,411,000	9.35	3.93	0.35	2.87
	<u>107,067,000</u>				
No. 6 mine:					
Proven	916,000	7.25	2.62	0.28	2.48
Total zinc-lead ore	<u>107,983,000</u>				
Copper ore					
No. 12 mine:					
Proven	9,474,000	1.13	0.40	1.11	0.85
Probable	4,620,000	1.57	0.54	1.12	1.39
Total copper ore	<u>14,094,000</u>				
Total ore reserves	<u>122,077,000</u>				

Brenda Mines (50.9% interest)

Brenda Mines Limited operates a copper-molybdenum mine and a 29,000 tons per day concentrator near Penticton, British Columbia. Production for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Ore milled (tons)	10,620,000	11,076,000	10,049,000	9,550,000	8,868,000
Average grade of copper (%)	0.190	0.167	0.188	0.186	0.203
Average grade of molybdenum (%)	0.047	0.045	0.052	0.051	0.058
Copper content of concentrates produced (tons) ..	17,800	16,100	16,600	15,300	16,000
Molybdenum content of concentrates produced (pounds)	8,400,000	8,000,000	8,400,000	7,642,000	8,346,000

Brenda Mines estimated its ore reserves at December 31, 1977 to be 108,677,000 tons having an average grade of 0.165% copper and 0.040% molybdenum.

In 1977, Brenda Mines invested \$5 million to earn a net profits interest in a drilling program in the Beaufort Sea and \$6.3 million to acquire an interest in semi-proven natural gas lands in Alberta. In 1978, Brenda Mines has invested an additional \$7.2 million in oil and gas drilling programs in the Beaufort Sea.

Central Canada Potash (51% interest)

Central Canada Potash Co. Limited, in which the Company has a 51% share interest and CF Industries Inc. of Chicago has a 49% interest, operates a potash mine near Saskatoon, Saskatchewan.

The production of the mine for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Ore milled (tons)	3,771,000	3,600,000	3,060,000	2,721,000	1,795,000
Average grade potassium oxide (%)	26.9	26.9	26.8	27.5	26.4
Muriate produced (tons)	1,451,000	1,396,000	1,154,600	1,040,000	681,000

Central Canada Potash estimated its ore reserves at December 31, 1977 to be 575,000,000 tons averaging 27% potassium oxide.

The Province of Saskatchewan imposed regulations which restricted production from 1970 until July 1974. The company has successfully contested these regulations and the Supreme Court of Canada has recently declared these regulations unconstitutional.

The Province of Saskatchewan also enacted regulations which imposed potash prorationing fees on each ton of potash produced on or after June 1, 1972. The company is contesting these regulations as unconstitutional or inapplicable to the company and is seeking a declaration from the Saskatchewan courts that the sum of \$2.5 million paid by it on account of prorationing fees be repaid.

The Province of Saskatchewan introduced new mineral reserve taxes at the beginning of 1975 retroactive to July 1974. Several potash mining companies, not including the company, are contesting the constitutionality of these taxes. On November 16, 1978 the Court of Queen's Bench of Saskatchewan declared these taxes to be constitutional. This decision is being appealed. Central Canada Potash operated at 88% of capacity in its fiscal year ended June 30, 1978 and had a pre-tax profit of \$19.6 million but after mineral royalty, producing tract tax, prorationing fee, reserve tax and federal and provincial income taxes it had an after tax loss of \$7.2 million.

Other Mining Interests

The Company owns the Boss Mountain molybdenum mine in British Columbia and Alberta Sulphate Limited, which has a sodium sulphate mine in Alberta. A subsidiary, Empresa Minera de el Setentrion has a gold mine in Nicaragua and another subsidiary, Empresa Fluorspar Mines Limited, has a 49% interest in a fluorspar mine in Mexico.

Exploration and Research

Noranda has permanent exploration offices in Canada, the United States, Australia, Europe and South America. Noranda spent \$21.7 million exploring for minerals during 1977, 45% of which was spent in Canada, 29% in the United States, 3% for ocean mining research and the balance in other areas, including Australia, Europe, Asia, Africa and South America.

Noranda spent \$4.5 million in 1977 on research activities at its research centre at Pointe Claire, Quebec which had a staff of 143, including 56 scientists, at December 31, 1977.

Metallurgy

Noranda Smelter (wholly-owned)

The Noranda smelter at Noranda, Quebec has capacity to handle about one million tons of concentrate per year and to produce about 250,000 tons of copper per year. This smelter treats copper concentrates from the Geco and Bell Copper mines and, on a custom basis, copper concentrates from 14 other mines, four of which are owned by Noranda or its associated companies. As part of the above-mentioned agreement to sell the Bell Copper mine, it has been agreed that the concentrate from the Bell Copper mine will continue to be handled at the Noranda smelter.

The production of the Noranda smelter for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Ore, concentrate, and scrap treated (tons):					
Company	182,000	176,000	287,000	341,000	325,000
Custom	798,000	799,000	735,000	839,000	825,000
Total	<u>980,000</u>	<u>975,000</u>	<u>1,022,000</u>	<u>1,180,000</u>	<u>1,150,000</u>
Copper content of anodes produced (tons) . . .	243,000	229,000	231,000	269,000	260,000

Noranda has developed a new copper smelting process. A commercial sized prototype reactor which utilizes the Noranda continuous smelting process commenced production at the Noranda smelter in 1973 and currently handles approximately one-third of the materials smelted. The process has been licensed to a major United States' copper company which has incorporated it in the rebuilding of one of its smelters.

Gaspé Smelter (wholly-owned)

Mines Gaspé has a smelter at Murdochville, Quebec which treats copper concentrate produced from its mines and, on a custom basis, copper concentrate from four other mines, including the two mines owned by Brunswick. This smelter has capacity to produce about 90,000 tons of copper per year. The

above-mentioned strike at Mines Gaspé has shut down this smelter. The production for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Concentrate treated (tons):					
Mines Gaspé	235,000	231,900	205,300	190,500	107,400
Custom	93,000	91,800	110,500	90,300	99,800
Total	328,000	323,700	315,800	280,800	207,200
Copper content of anodes produced (tons) . . .	75,800	73,600	73,200	69,700	49,300
Sulphuric acid (tons)	168,800	192,900	174,900	154,700	12,300

Brunswick Smelter (64.1% interest)

The Brunswick smelter, located at Belledune, New Brunswick, has capacity to handle about 220,000 tons of concentrate per year. This smelter treats low-grade concentrate from the Brunswick mine and has had production for the five years ended December 31, 1977, as follows:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Refined lead (tons)	56,400	51,400	50,900	44,200	34,450
Silver (ounces)	3,458,000	3,004,000	2,195,000	2,085,000	1,255,000

Noranda owns a diammonium phosphate fertilizer plant adjacent to the Brunswick smelter. This plant consumes the sulphuric acid produced as a by-product of the smelter.

Canadian Copper Refiners (wholly-owned)

Anode copper from the Noranda and the Gaspé smelters and other unrefined copper and copper scrap are refined at the Montreal East refinery of Canadian Copper Refiners Limited. This is one of the largest copper refineries in the world with a capacity of 480,000 tons per year. Production for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Copper (tons)	383,000	387,000	395,000	427,000	373,000
Silver (ounces)	21,986,000	22,501,000	19,835,000	19,413,000	14,599,000
Gold (ounces)	372,000	336,000	346,000	352,000	351,000

Zinc Reduction Plant (22.7% direct, 34.5% indirect)

The Company owns a 22.67% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec which is administered by Canadian Electrolytic Zinc Limited. A wholly-owned subsidiary of Mattagami Lake Mines Limited owns a 51.67% interest in the plant, Orchan Mines Limited owns a 15.83% interest and two wholly-owned subsidiaries of Kerr Addison Mines Limited own the remaining 9.83% interest. The plant converts concentrate produced or purchased by its owners into zinc metal and cadmium and has a capacity of 225,000 tons of zinc metal a year.

Due to depressed demand and high inventory levels, the plant operated at about 70% of capacity in 1977 and early 1978. The markets for zinc have improved in recent months and the plant will operate at an average of about 78% of capacity for this year. Inventories of zinc metal and concentrate have been reduced.

Production for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Zinc (tons)	155,550	125,800	117,700	134,800	148,800
Cadmium (pounds)	928,200	380,000	401,000	772,000	598,000

The five-year power contract with Hydro-Quebec for the plant recently expired and a new contract is being negotiated. The cost of power will be increased substantially under the new contract.

Associated Mining Companies

The Company has substantial interests in the seven mining companies described below. All of these are public companies, the shares of which are listed on The Toronto Stock Exchange and other stock exchanges in Canada. The Company has not guaranteed and is not contingently liable for any debt or other obligations of these companies, except for an undertaking to guarantee borrowings by Tara.

Kerr Addison (41.2% direct, 2.3% indirect)

Kerr Addison Mines Limited owns and operates a gold mine in the Larder Lake area of northern Ontario and, through two wholly-owned subsidiaries, has a 9.83% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec described above.

The Kerr Addison mine is equipped with a concentrator which is currently operating at a daily rate of 700 tons. During 1977 the concentrator treated 239,000 tons of ore with an average grade of 0.45 ounce of gold per ton. Kerr Addison estimated that the ore reserves at its mine at December 31, 1977 were 520,000 tons with an average grade of 0.46 ounce of gold per ton.

Kerr Addison has a 90% interest in a uranium property near Agnew Lake, Ontario. As a result of continuing start-up problems, the production of the mine has been about 40% of the originally estimated production capacity of 1,000,000 pounds per year. At December 31, 1977, Kerr Addison's share of accumulated pre-production expenditures for this project was \$61.7 million. Agnew Lake has borrowed and sold 2,000,000 pounds of uranium concentrates which must be repaid in kind within four years of each delivery date. Ore reserves as estimated by the company at December 31, 1977 were 12.0 million tons averaging 1.05 pounds of uranium oxide per ton.

Kerr Addison owns 75% of the shares of Mogul of Ireland Limited which has a zinc-lead mine in County Tipperary, Republic of Ireland. Production in 1977 was 931,000 tons of ore having an average grade of 2.5% lead and 6.7% zinc. Ore reserves at December 31, 1977 as estimated by Mogul were 3,615,000 tons averaging 3.1% lead and 5.4% zinc.

Kerr Addison, through its wholly-owned subsidiary Agnew Lake Mines Limited, has invested in the oil and natural gas exploration program managed by Canadian Hunter Exploration Ltd. as described under "Oil and Gas".

The value of Kerr Addison's net current assets and investments at quoted market values, where applicable, exceeded \$57 million at December 31, 1977.

Orchan (45.1% direct, 6.4% indirect)

Orchan Mines Limited owns and operates two small zinc-copper mines and a concentrator in the Matagami area of Quebec and has a 15.83% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec described above under "Zinc Reduction Plant." Reference is made to the next section of this Information Booklet for additional information about Orchan.

Mattagami (34.1% direct, 8.5% indirect)

Mattagami Lake Mines Limited owns and operates a zinc-copper mine in the Matagami area of Quebec and has a 60% share interest in Mattabi Mines Limited which operates a zinc-copper-lead-silver mine in the Sturgeon Lake area of northwestern Ontario. Mattagami Refining Inc., a wholly-owned subsidiary of Mattagami, has a 51.67% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec described above under "Zinc Reduction Plant." Reference is made to the third section of this Information Booklet for additional information about Mattagami.

Placer (31.3% direct, 1.0% indirect)

Placer Development Limited, a diversified holding, operating and exploration company, owns and operates a molybdenum mine, has interests in and operates three other mines and has recently acquired an oil and gas exploration and production company. It also has a 27.1% share interest in Mattagami Lake Mines Limited.

During 1977 the concentrator at the wholly-owned Endako mine in British Columbia treated 10,014,000 tons of ore averaging 0.16% molybdenum disulphide to produce 15,274,000 pounds of molybdenum. The ore reserves of the Endako mine at December 31, 1977, as estimated by the company, were 232,000,000 tons averaging 0.082% molybdenum.

Placer owns a 71.9% share interest in Gibraltar Mines Limited which has a copper mine in British Columbia. During 1977 the concentrator treated 14,071,000 tons of ore averaging 0.38% copper to produce

43,390 tons of copper in concentrate. The ore reserves of the Gibraltar mine at December 31, 1977, as estimated by the company, were 286,000,000 tons averaging 0.36% copper. Production has been halted by a strike which began in May, 1978.

Placer owns a 39.9% share interest in Marcopper Mining Corporation which has a copper mine in the Philippines. During 1977 the concentrator treated 10,071,000 tons of ore averaging 0.56% copper to produce 52,078 tons of copper, 45,000 ounces of gold and 240,600 ounces of silver in concentrate. The ore reserves of the Marcopper mine at December 31, 1977, as estimated by the company, were 74,900,000 tons averaging 0.58% copper. Marcopper has discovered an ore body under its present tailings disposal area that is estimated to contain in excess of 200,000,000 tons of ore averaging 0.57% copper. Preparations for development of this ore body are underway. Marcopper has a 5% interest in a company incorporated to develop a copper smelter complex in the Phillipines.

During 1977 Placer acquired, through a wholly-owned subsidiary, all of the outstanding common shares of Canadian Export Gas & Oil Ltd. The total cost of this acquisition was about \$54 million. Canadian Export Gas & Oil is an exploration and production company that holds interests in oil and gas leases in Canada, the North Sea and the United States. Gross production during the 12 months ended December 31, 1977 amounted to 796,200 barrels of oil and 10.5 billion cubic feet of natural gas. Proven and probable reserves at December 31, 1977 as estimated by the company were 12.5 million barrels of oil and natural gas liquids and 180 billion cubic feet of natural gas.

Placer owns a 44.6% share interest in Craigmont Mines, Ltd. which is discussed below.

Craigmont (19.7% direct, 14.0% indirect)

Craigmont Mines, Ltd. owns and operates a copper mine near Merritt, British Columbia. During the fiscal year ended October 31, 1977 the concentrator at the Craigmont mine treated 2,050,000 tons of ore with an average grade of 1.17% copper. The mineral reserves at this mine are nearly exhausted and mining operations are expected to cease in the first quarter of 1979. Craigmont has announced a copper discovery of unknown extent on a property in which it has an 80% interest located approximately 50 miles north of Kamloops, British Columbia.

Pamour (48.8% interest)

Pamour Porcupine Mines, Limited operates two mills and treats gold and copper-bearing material from five mining properties in the Porcupine area of Ontario. During 1977 total production was 164,267 ounces of gold, 63,115 ounces of silver and 3,093 tons of copper from the treatment of 1,997,000 tons of ore. Ore reserves at December 31, 1977, as estimated by Pamour, were 1,678,000 tons of gold ore averaging 0.10 ounce of gold per ton and 2,011,000 tons of copper ore averaging 0.40% copper and 0.095 ounce of gold per ton.

Tara (41.3% interest)

Tara Exploration and Development Company Limited, through a subsidiary, has developed a zinc-lead mine in Ireland. The company has estimated its proven ore reserves, on an undiluted basis, to be 67,300,000 tons grading 11.0% zinc and 2.4% lead. In 1975 the Republic of Ireland granted a mining lease to the subsidiary and was given a 25% interest in the subsidiary. The total cost of developing the mine was U.S. \$150 million of which U.S. \$130 million was financed through debt and the remainder through equity. The repayment schedule for the debt has been renegotiated to defer principal repayments until 1980. Production in 1977 from start-up in June was 789,700 tons of ore averaging 9.9% zinc and 2.0% lead and 145,800 tons of concentrate containing 71,200 tons of zinc and 10,700 tons of lead. Noranda has undertaken to guarantee up to U.S. \$15 million of additional financing by Tara if required.

Marketing

The Company through Noranda Sales Corporation Ltd., a wholly-owned subsidiary, is an international marketer of primary metals and minerals for 45 companies including Noranda, its associated companies and 23 other Canadian companies. Business transacted in 1977 exceeded \$1.7 billion and included 254,800 tons of copper, 147,700 tons of zinc, 23.2 million pounds of molybdenum, 19 million ounces of silver, 567,000 ounces of gold and significant quantities of zinc and lead concentrates, lead, selenium, tellurium, fluorspar, cadmium, bismuth, sulphuric acid, phosphate fertilizers, potash and copper sulphate. Noranda has a 50% voting interest in Rudolf Wolff & Co. Limited, a founder member and a leading metal broker on the London Metal Exchange.

Manufacturing

Various subsidiaries and associated companies are engaged in the fabrication and sale of brass mill products, wire and cable, iron foundry products, wire rope, plastic pipe, primary aluminum, aluminum extrusions and aluminum building products.

Canada Wire and Cable (wholly-owned)

Canada Wire and Cable Limited is one of the largest manufacturers of electrical wire and cable in Canada. Its eleven plants and seven warehouses are located in major markets across Canada and its Industrial Wire division has plants located at Quebec City, Quebec and Toronto, Ontario.

Canada Wire's international operations include minority interests in wire and cable manufacturers in Australia, Brazil, Colombia, Dominican Republic, Iran, Mexico, New Zealand, Nigeria, South Africa and Venezuela.

Grandview Industries Limited, a wholly-owned subsidiary, produces plastic pipe at Rexdale, Ontario, Weyburn, Saskatchewan and Langley, British Columbia; blends resins at Brampton, Ontario; and fabricates plastic products at Toronto, Ontario and Montreal, Quebec. Plastic fittings are produced by Canplas Industries Limited, a 50% owned associate, in New Westminster, British Columbia and Barrie, Ontario.

Noranda Metal Industries (wholly-owned)

Noranda Metal Industries Limited manufactures copper and copper base alloy products. It produces sheet, strip, rod and tube at Montreal East, Quebec; strip and sheet at Fergus, Ontario; and copper tube on Annacis Island near Vancouver, British Columbia. A plant at Arnprior, Ontario produces zirconium and other alloy tubes. Noranda Metal Industries, Inc. manufactures specialty tubing at Newtown, Connecticut.

Norcast Ltd., a wholly-owned subsidiary, produces iron grinding media, mill liners and general castings, primarily for use in the mining industry, in a foundry at Mont Joli, Quebec and has a secondary metal recovery plant at Moncton, New Brunswick.

Noranda Aluminum (wholly-owned)

Noranda Aluminum, Inc. operates an aluminum reduction plant and a rod, wire and cable mill at New Madrid, Missouri. The reduction plant has two potlines with a capacity of 140,000 tons per year. In 1977 slightly over 145,000 tons of primary aluminum were produced. Of this quantity 7,560 tons were converted by the company into electrical transmission wire, 16,310 tons were custom rolled for conversion into siding by Norandex and 5,220 tons were extruded by Norandex. The rod, wire and cable mill which is located adjacent to the reduction plant has a capacity of 25,000 tons per year and produces steel reinforced aluminum conductor and redraw rod.

Electric power is supplied to all the facilities under a long-term power sales contract between the City of New Madrid, Associated Electric Cooperative, Inc. and Noranda Aluminum. There is a dispute as to the amount which Associated is entitled to charge for power. A settlement of this dispute is pending. Noranda Aluminum has paid Associated under protest and with reservation of rights approximately \$1.3 million in excess of the amount calculated as owing by Noranda Aluminum for the three months ended June 30, 1977 and \$6.8 million for the 15 months ended September 30, 1978. Associated also made a retroactive claim for \$3.4 million for the nine months ended March 31, 1977 which was paid under protest and with reservation of rights. The trial judge has notified the parties of his intention to rule adversely to Noranda Aluminum on the interpretation of the contract between the parties during the period of dispute ended June 30, 1977.

The plant was shut down for two months in early 1978 due to the failure of Associated to supply power during the last stages of the United States coal strike. The plant has now returned to full production. As a part of the above-mentioned dispute as to the amounts chargeable for power, Noranda Aluminum is seeking damages resulting from the failure of Associated to supply power in early 1978.

Noranda Aluminum recently has agreed to purchase an aluminum casting, sheet and foil plant with a capacity of 40,000 tons of sheet and foil products per year located at Huntingdon, Tennessee. The purchase will be effective January 2, 1979 and the purchase price will be approximately U.S. \$40 million including working capital.

Noranda Aluminum has a 38.5% interest in Frialco, a joint venture which owns 51% of Friguia, which in turn owns a bauxite-alumina facility in Guinea, West Africa having a capacity of 650,000 metric tons of alumina per year. The Government of Guinea owns the other 49% of Friguia.

Norandex (wholly-owned)

Norandex Inc. manufactures extrusions, aluminum windows, doors, siding and other building materials at Cleveland, Ohio and distributes these together with purchased building materials through a network of 64 warehouses in the United States. Its principal source of aluminum is Noranda Aluminum.

Wire Rope Industries (51.4% interest)

Wire Rope Industries of Canada Limited is the largest manufacturer of steel wire rope in Canada and also produces or sells fencing, netting, synthetic ropes and slings. Noranda also owns a 49% interest in Bridon-American Corp. which has wire rope and steel wire-drawing facilities in Pennsylvania.

Forest Products

Noranda participates directly and indirectly in the whole spectrum of the forest products industry. Its lumber, plywood, pulp and paper operations are conducted through Northwood Mills Ltd., Fraser Companies, Limited, Northwood Pulp and Timber Limited and British Columbia Forest Products Limited.

Northwood Mills (wholly-owned)

Northwood Mills Ltd.'s production of lumber, the volume of lumber sold by the sales division, and the volume of lumber and panel board sold by the building materials division for the five years ended December 31, 1977 are set out below:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Lumber produced (mfbm)*	180,000	178,500	110,000	110,000	194,500
Sales division—lumber sold(mfbm)	775,000	711,000	367,000	660,000	701,200
Building materials division—					
Lumber sold (mfbm)	245,000	284,000	410,000	396,000	368,000
Panel board sold (msm-1/16)**	856,000	1,039,000	1,197,000	1,044,000	888,000

*Thousand feet board measure

**Thousand square foot measure, one sixteenth inch thick

Northwood Mills recently sold the two sawmills which it had operated in the Okanagan region of British Columbia for a sale price of \$18.5 million plus working capital and realized a gain of \$11.3 million.

The production of Northwood Mills has been marketed by its sales division which also acts as sales agent for the lumber production of Northwood Pulp and Timber Limited and non-affiliated producers. Over 80% of its sales are made in North America and the balance in the United Kingdom, Europe and Japan. Its building materials division operates a lumber brokerage and a wholesale building materials business with warehouses in Calgary and Edmonton, Alberta; Winnipeg, Manitoba; Brampton and London, Ontario; and Montreal, Quebec.

Fraser (54.9% interest)

Fraser Companies, Limited operates two sulphite pulp mills, a groundwood pulp mill and two sawmills in New Brunswick and a subsidiary produces groundwood and fine papers at Madawaska, Maine.

Fraser's production for the five years ended December 31, 1977 has been as follows:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Paper (tons)	385,100	375,800	301,000	372,400	364,100
Paperboard (tons)	31,500	32,600	30,300	32,600	31,600
Pulp (tons)	83,000	74,100	53,700	100,400	85,300
Lumber (mfbm)	67,700	64,700	42,900	51,600	50,200

In 1976 Fraser began a three year program to convert and expand its Edmundston, New Brunswick pulp mill at an estimated cost of \$91 million of which \$46 million had been spent by the end of 1977. The program will result in better wood yield, increased production capacity, improved product quality, reduced heat and chemical losses, and compliance with current environmental standards.

In 1978 Fraser embarked on a new major project to enlarge its capacity to produce groundwood printing paper at an estimated cost of \$39 million.

Northwood Pulp and Timber (50% interest)

Northwood Pulp and Timber Limited, owned jointly by Northwood Mills Ltd. and a subsidiary of The Mead Corporation of Dayton, Ohio, holds a pulpwood harvesting area licence granted in 1964 by the Province of British Columbia for 21 years (renewable upon application) covering 2.5 million acres of productive timberland in the Prince George forest district. The company has a kraft pulp mill at Prince George, British Columbia with a rated capacity of 800 tons of bleached kraft pulp per day. The Mead Corporation purchases up to half the production, Fraser purchases up to 20% and the remainder is currently being sold about equally in North American and overseas markets.

The company also operates four sawmills in the northern interior region of British Columbia. The principal specie cut is western white spruce. The company holds timber cutting rights granted by the Province sufficient to support present operations on a sustained yield basis. Its lumber production is sold by Northwood Mills. The company also produces chips which are shipped to its pulp mill or sold to other pulp mills.

In late 1977, Northwood Pulp & Timber acquired a particle board plant in Chatham, New Brunswick from Northwood Mills and is converting it into a waferboard plant at a cost of about \$11 million. The converted plant is scheduled to start production in March, 1979.

Production of the pulp and sawmills of Northwood Pulp and Timber for the five years ended December 31, 1977 is set out below:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Pulp (tons).....	205,000	231,000	169,000	208,000	234,200
Lumber (mfbm).....	554,000	512,000	235,000	447,000	504,500
Chips (B.D.U.)*.....	332,000	334,000	156,000	282,000	283,000

*Bone Dry Units

British Columbia Forest Products (28.4% interest)

Noranda owns 28.4% of the common shares of British Columbia Forest Products Limited. The same percentage is owned directly or indirectly by The Mead Corporation.

British Columbia Forest Products operates pulp, newsprint, sawmill, plywood and shingle facilities at a number of locations in British Columbia. The company's production for the five years ended December 31, 1977 is set out below:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Lumber (mfbm).....	812,000	721,000	434,000	474,000	536,000
Plywood (msm-1/16).....	1,203,000	1,141,000	802,000	986,000	1,162,000
Pulp (tons).....	421,000	480,000	356,000	466,000	452,000
Newsprint (tons).....	257,000	252,000	193,000	246,000	256,000

British Columbia Forest Products has a 40% equity interest at a cost of \$28 million and The Donohue Company Limited a 60% equity interest in Donohue St. Felicien Inc., a company formed to develop a \$300 million integrated forest products complex at St. Felicien, Quebec. A 760 ton per day bleached kraft pulp mill is under construction and start-up is planned for late 1978.

In 1977 British Columbia Forest Products acquired the shares of Blandin Paper Co. of Grand Rapids, Minnesota. The Antitrust Division of the United States Justice Department has filed a complaint against British Columbia Forest Products, Noranda and The Mead Corporation seeking the divestiture of

either Blandin by British Columbia Forest Products or British Columbia Forest Products by Mead and Noranda. Blandin's paper mill has a capacity of about 310,000 tons per year of coated paper and its wafer-board mill has a capacity of 60,000 tons per year. Blandin owns more than 130,000 acres of woodlands.

Oil and Gas

Canadian Hunter Exploration Ltd., a wholly-owned subsidiary formed in 1973, manages an oil and gas exploration and development program (the "program") in western Canada. Including an expenditure of \$19 million in 1977, the Company has spent \$76 million on land acquisitions, exploratory drillings and field development through December 31, 1977. Agnew Lake Mines Limited in 1977 earned a 20% interest in the program through expenditures on exploration and development. Petromark Minerals Ltd. will earn by December 31, 1978 a 10% interest in the program, in equal shares from the Company and Agnew Lake Mines Limited, which will reduce Agnew Lake to a 15% interest in the program and the Company to a 75% interest. The participants' share of the program as at December 31, 1977 amounted to approximately \$39 million. In order to maintain their proportionate interests the parties will have to invest additional amounts.

Under a farmout agreement between the Company, Agnew Lake and Esso Resources Canada (a wholly-owned subsidiary of Imperial Oil Limited), Esso may earn up to a 12.5% interest in the program's acreage in the Elmworth and Wapiti areas of Alberta and 17.5% of all other acreage by spending a minimum of \$150 million during the 30-month period from August 1, 1978. Esso may spend an additional \$29 million under various option arrangements that do not alter its final interests in the lands. If Esso earns the entire interest, Noranda's direct interest in the program will be reduced from 75% to 64.6% in the Elmworth-Wapiti acreage and to 60.4% in the other properties and Agnew Lake's interest will be reduced from 15% to 12.9% and to 12.1% respectively. In order to maintain its 10% interest Petromark will have to meet its normal ongoing share of expenditures plus contribute up to an additional \$19.9 million during the 30-month earning period.

Proved developed reserves at December 31, 1977 were 4.2 million barrels of crude oil and 154 billion cubic feet of natural gas and probable additional reserves were 3.1 million barrels of crude oil and 91 billion cubic feet of natural gas. Land holdings at December 31, 1977 were about 1.8 million net acres. Production volumes (net of royalties) for the four years ended December 31, 1977 have been as follows:

	Years ended December 31,			
	1977	1976	1975	1974
Crude Oil (thousands of barrels)	247.0	288.5	225.6	93.3
Natural Gas (millions of cubic feet)	2,875.9	2,452.3	1,204.3	—

Noranda has contributed \$9.1 million to the exploration program of PanArctic Oils Limited over the ten years ended December 31, 1977. Since June, 1978 Noranda has not contributed to PanArctic's expenditures. As a result Noranda's interest in PanArctic has declined to 4.19% from 4.49%. To date PanArctic has made seven major gas discoveries and one oil discovery in the Arctic Islands. The commercial significance of these discoveries is uncertain.

Capital and Deferred Development and Exploration Expenditures

The following table shows Noranda's capital and deferred development and exploration expenditures for the five years ended December 31, 1977 and the nine months ended September 30, 1978:

	Nine months ended September 30, 1978	Years ended December 31,				
		<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>
		(in millions)				
Expenditures.....	\$83	\$141	\$143	\$186	\$128	\$94

Major projects included in these expenditures were the expansion of the Mines Gaspé mine, concentrator and smelter, the construction of the Noranda continuous smelting process reactor, a modification to the Brunswick smelter, construction of a second stage of the aluminum complex, expansion of the zinc reduction plant, construction of a zirconium tube plant and the Fraser modernization program.

Expenditures during 1978 are expected to be approximately \$134 million of which \$45 million will be for the Fraser programs and \$28 million for the Canadian Hunter program. Expenditures during 1979 are expected to be approximately \$180 million including the acquisition of the aluminum casting, sheet and foil plant.

Environmental Control

Mining, metallurgical and pulp operations by their nature may cause pollution. Except for an action for an injunction for alleged environmental contamination referred to under "Pending Legal Proceedings" below, none of Noranda's operations is the subject of litigation or administrative proceedings relating to environmental matters which would significantly affect the conduct of Noranda's business. While Noranda has made and expects to make in the future expenditures for the abatement of pollution at its various operations, it does not contemplate that such expenditures will materially adversely affect its financial results.

Pending Legal Proceedings

The Company is one of 29 defendants, described as uranium producers and located in various countries, to a private antitrust action instituted on or about October 15, 1976 by Westinghouse Electric Corporation in the United States District Court for the Northern District of Illinois alleging the existence of a conspiracy among such producers to restrain interstate and foreign commerce in uranium. A motion to dismiss the action as against the Company on jurisdictional grounds is pending. A second action alleging the existence of the same conspiracy has been brought against the Company and seven other defendants by the Tennessee Valley Authority and a motion to dismiss the actions as against the Company on jurisdictional grounds is pending. It is expected that the damages ultimately claimed by the plaintiffs will be substantial.

The Company and three associated companies are among 15 defendants in an action instituted in the Superior Court of the Province of Quebec for the District of Montreal on or about November 25, 1976 by individual and groups of Cree Indians for damages of \$8,034,000 and injunctive relief in respect of alleged environmental contamination and other interference with alleged aboriginal and territorial rights of the Cree Indians in Northern Quebec.

The Company is defending these actions and believes it has a good defence on the merits.

Reference is made to "Noranda Aluminum" and "Central Canada Potash" with respect to disputes involving these subsidiaries.

Dividend Record

The Company has paid dividends on its outstanding shares for its last five fiscal years and for the nine months ended September 30, 1978 as shown in the following table. Reference is made to note 4(a) to the Consolidated Financial Statements as to the Company's interest in dividends paid to subsidiary and associated companies.

		Nine months ended September 30, 1978	Year ended December 31,				
			1977	1976	1975	1974	1973
Per share	Class A.....	\$0.90	\$1.20	\$1.20	\$2.00	\$1.80	\$1.40
	Class B.....	\$0.90	\$1.155	\$1.02	\$1.70	\$1.53	\$0.6375(1)
Total	Class A.....	\$20,190,000	\$26,649,000	\$26,630,000	\$46,206,000	\$41,594,000	\$33,222,000
	Class B (2)....	\$ 1,871,000	\$ 2,708,000	\$ 2,723,000	\$ 2,711,000	\$ 2,290,000	\$ 854,000(1)

NORANDA MINES LIMITED

Consolidated Balance Sheet

(in thousands)

Assets

	As at September 30, 1978 (unaudited)	As at December 31, 1977
CURRENT ASSETS		
Cash and short-term commercial notes.....	\$ 18,235	\$ 21,335
Marketable investments, at cost less amounts written off (quoted market value \$17,422,000; 1977—\$15,674,000).....	13,814	14,942
Accounts, advances and tolls receivable.....	385,534	320,067
Inventories.....	408,042	395,603
	<u>825,625</u>	<u>751,947</u>
INVESTMENTS IN AND ADVANCES TO ASSOCIATED AND OTHER COMPANIES (note 2).....	<u>413,464</u>	<u>387,179</u>
FIXED ASSETS		
Property, buildings and equipment, at cost.....	1,614,129	1,551,239
Accumulated depreciation.....	(712,752)	(668,674)
	<u>901,377</u>	<u>882,565</u>
OTHER ASSETS (note 3)	<u>133,998</u>	<u>131,190</u>
	<u>\$ 2,274,464</u>	<u>\$2,152,881</u>

Liabilities

CURRENT LIABILITIES		
Bank advances (note 4 (c)).....	\$ 199,860	\$ 206,132
Accounts payable.....	297,420	257,929
Taxes payable.....	46,146	25,235
Debt due within one year (note 4).....	92,306	99,321
	<u>635,732</u>	<u>588,617</u>
DEFERRED LIABILITIES AND HOLDBACKS PAYABLE.....	<u>12,932</u>	<u>10,321</u>
TAXES PROVIDED NOT CURRENTLY PAYABLE.....	<u>87,810</u>	<u>82,758</u>
LONG-TERM DEBT (note 4).....	<u>580,789</u>	<u>588,881</u>
MINORITY INTEREST IN SUBSIDIARIES.....	<u>140,004</u>	<u>128,155</u>
SHAREHOLDERS' EQUITY		
Capital Stock (note 6)		
Authorized: 40,000,000 shares of no par value		
Issued: 24,612,086 shares at September 30, 1978; 24,464,511 shares at December 31, 1977 (note 6 (a)).....	89,194	85,354
Retained earnings.....	739,981	680,773
	<u>829,175</u>	<u>766,127</u>
Less the Company's proportionate interest in its shares held by sub- sidiary and associated companies.....	(11,978)	(11,978)
	<u>817,197</u>	<u>754,149</u>
	<u>\$2,274,464</u>	<u>\$2,152,881</u>

(See accompanying notes)

On Behalf of the Board,

(Signed) ALFRED POWIS, Director

(Signed) WILLIAM S. ROW, Director

NORANDA MINES LIMITED

Consolidated Statements of Earnings and Retained Earnings

(in thousands)

	For the Nine months ended September 30,		For the Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited)						
EARNINGS:							
Revenue:							
From metals, products and custom tolls.....	\$1,233,546	\$1,062,366	\$1,386,516	\$1,232,394	\$1,156,423	\$1,147,041	\$ 848,545
Other (net).....	5,423	4,357	9,271	2,360	2,851	4,859	2,086
	<u>1,238,969</u>	<u>1,066,723</u>	<u>1,395,787</u>	<u>1,234,754</u>	<u>1,159,274</u>	<u>1,151,900</u>	<u>850,631</u>
Expense:							
Cost of metal, production and products sold.....	905,726	815,253	1,040,874	943,850	870,572	734,747	616,431
Administration, selling and general expenses.....	74,125	70,180	94,353	87,097	83,909	66,045	45,248
Depreciation.....	58,423	56,322	75,103	64,409	62,336	59,834	41,860
Development charges.....	2,913	5,752	8,033	5,821	4,004	6,942	6,858
Exploration and research written off (note 8).....	16,911	27,075	35,963	16,970	25,665	22,360	11,345
Interest on long-term debt.....	35,311	33,921	44,444	39,604	36,488	30,321	18,509
Other interest—net.....	19,681	15,860	27,412	22,048	8,865	3,481	1,325
	<u>1,113,090</u>	<u>1,024,363</u>	<u>1,326,182</u>	<u>1,179,799</u>	<u>1,091,839</u>	<u>923,730</u>	<u>741,576</u>
	<u>125,879</u>	<u>42,360</u>	<u>69,605</u>	<u>54,955</u>	<u>67,435</u>	<u>228,170</u>	<u>109,055</u>
Income and production taxes (note 7)	62,274	19,667	22,666	25,068	41,458	106,636	54,226
Minority interest in earnings of subsidiaries.....	14,540	8,831	12,625	10,050	10,089	17,099	1,346
	<u>76,814</u>	<u>28,498</u>	<u>35,291</u>	<u>35,118</u>	<u>51,547</u>	<u>123,735</u>	<u>55,572</u>
Earnings of Noranda.....	49,065	13,862	34,314	19,837	15,888	104,435	53,483
Share of earnings of associated com- panies (note 2).....	31,864	23,277	32,862	26,898	34,637	50,435	67,911
	<u>80,929</u>	<u>37,139</u>	<u>67,176</u>	<u>46,735</u>	<u>50,525</u>	<u>154,870</u>	<u>121,394</u>
Aluminum plant shutdown—abnormal costs (note 10(b)).....	(11,718)	—	—	—	—	—	—
Gain on sale of assets (note 10(a)).....	11,265	—	—	—	—	—	—
Earnings	<u>\$ 80,476</u>	<u>\$ 37,139</u>	<u>\$ 67,176</u>	<u>\$ 46,735</u>	<u>\$ 50,525</u>	<u>\$ 154,870</u>	<u>\$ 121,394</u>
Earnings per share.....	<u>\$3.41</u>	<u>\$1.57</u>	<u>\$2.85</u>	<u>\$1.98</u>	<u>\$2.14</u>	<u>\$6.59</u>	<u>\$5.17</u>
RETAINED EARNINGS:							
Balance, beginning of period (includ- ing \$5,043,000 previously classified as contributed surplus).....	\$ 680,773	\$ 641,895	\$ 641,895	\$ 623,457	\$ 620,085	\$ 507,552	\$ 419,023
Earnings.....	80,476	37,139	67,176	46,735	50,525	154,870	121,394
	<u>761,249</u>	<u>679,034</u>	<u>709,071</u>	<u>670,192</u>	<u>670,610</u>	<u>662,422</u>	<u>540,417</u>
Dividends paid (note 6(a)).....	21,268	21,225	28,298	28,297	47,153	42,337	32,865
Balance, end of period.....	<u>\$ 739,981</u>	<u>\$ 657,809</u>	<u>\$ 680,773</u>	<u>\$ 641,895</u>	<u>\$ 623,457</u>	<u>\$ 620,085</u>	<u>\$ 507,552</u>

(See accompanying notes)

NORANDA MINES LIMITED

Consolidated Statement of Changes in Financial Position (in thousands)

	For the Nine months ended September 30,		For the Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited)						
WORKING CAPITAL, BEGINNING OF PERIOD.....	\$163,330	\$197,450	\$197,450	\$188,002	\$182,890	\$146,593	\$129,246
SOURCE OF FUNDS:							
Operations—							
Earnings.....	80,476	37,139	67,176	46,735	50,525	154,870	121,394
Depreciation and develop- ment charges.....	61,336	62,074	83,136	70,230	66,340	66,776	48,718
Taxes provided not currently payable.....	5,052	(7,583)	(3,071)	(31,584)	15,077	37,500	15,371
Minority interest in earnings of subsidiaries.....	14,540	8,831	12,625	10,050	10,089	17,099	1,346
Share of earnings less divi- dends of associated com- panies.....	(24,853)	(11,582)	(17,932)	(11,535)	(15,162)	(31,940)	(51,186)
	136,551	88,879	141,934	83,896	126,869	244,305	135,643
Sale of Northwood Panelboard Ltd. (note 2 (e)).....	—	—	6,396	—	—	—	—
Sale of Northwood Properties Limited (note 10(a)).....	7,214	—	—	—	—	—	—
Issue of shares.....	3,840	13	16	348	251	3,249	1,273
Long-term financing.....	496	1,014	1,517	108,100	163,800	72,055	10,865
Fixed asset disposals.....	2,948	341	7,760	8,901	2,076	2,583	8,692
Increase (decrease) in deferred liabilities and holdbacks pay- able.....	2,611	2,052	1,711	(404)	2,210	1,564	936
	153,660	92,299	159,334	200,841	295,206	323,756	157,409
APPLICATION OF FUNDS:							
Fixed assets and projects under construction (note 9).....	84,171	73,188	119,565	115,628	158,147	101,674	82,918
Non-current assets (net) of ac- quired subsidiaries (note 2 (d))	—	—	—	—	(2,407)	11,394	24,335
Dividends paid to							
—shareholders.....	21,268	21,264	28,298	28,297	47,153	42,337	32,865
—minority shareholders of subsidiaries.....	2,691	3,563	4,821	4,150	4,410	—	—
Investments and advances (net).	1,433	2,959	7,366	(21,880)	31,075	73,418	(36,014)
Current maturities of long-term debt.....	8,588	8,033	11,656	37,797	24,486	33,657	25,151
Deferred development, explora- tion and other expenditures (note 9).....	8,826	24,032	21,748	27,401	28,111	26,457	11,248
Other (net).....	120	49	—	—	(881)	(1,478)	(441)
	127,097	133,088	193,454	191,393	290,094	287,459	140,062
Net increase (decrease).....	26,563	(40,789)	(34,120)	9,448	5,112	36,297	17,347
WORKING CAPITAL, END OF PERIOD..	\$189,893	\$156,661	\$163,330	\$197,450	\$188,002	\$182,890	\$146,593

(See accompanying notes)

NORANDA MINES LIMITED

Notes to Consolidated Financial Statements

(Information as at September 30, 1978 and for the nine months ended September 30, 1978 and September 30, 1977 is unaudited)

1. ACCOUNTING POLICIES

- (a) The principal accounting policies followed by Noranda Mines Limited and its subsidiaries are summarized below:

Basis of presentation of financial statements:

The accompanying financial statements are prepared in accordance with accounting principles generally accepted in Canada and include, on a consolidated basis, the accounts of Noranda Mines Limited (the Company) and all of its subsidiaries. The Company together with its subsidiaries is referred to as Noranda. Noranda's interests in associated companies in which it has significant influence but not majority share ownership are accounted for on the basis of cost plus Noranda's equity in undistributed earnings of such companies since the dates of investment. The difference between the cost of the shares of associated companies over the underlying net book value of the assets is amortized over the life of the assets to which the difference is attributed. Other long-term investments are carried at cost less any amounts written off.

Certain subsidiary and associated companies own shares in the Company. The Company's proportionate interest in the carrying value of such shares has been deducted from shareholders' equity. Similarly, the Company's earnings per share have been calculated on the number of shares outstanding after reduction for such intercompany holdings.

Translation of foreign currencies:

Foreign currency assets and liabilities of the Company and its subsidiaries and associated companies are translated into Canadian dollars as follows: working capital at exchange rates prevailing at the end of the period; fixed and other long-term assets, long-term debt, and depreciation provisions on the basis of historic rates of exchange; revenues and expenses (other than depreciation) at average rates during the period. Exchange translation gains and losses from these procedures are included in consolidated earnings.

Inventories:

Mine products are valued at estimated realizable value and other inventories at the lower of cost and market. In the U.S. subsidiary companies and certain foreign affiliates, the cost of major inventories is determined on a LIFO basis.

Futures contracts:

From time to time, the Company owns futures contracts for the purchase or sale of metals and currencies. These contracts are not reflected in the Company's accounts, beyond the amount of deposit required, until maturity date although provision is made for any estimated unrealized losses.

Depreciation and development charges:

Depreciation of property, buildings and equipment and amortization of development expenditures are based on the estimated service lives of the assets calculated using the method appropriate in the circumstances, for the most part straight-line for fixed assets and unit of production for development.

Exploration:

Mineral and petroleum exploration expenditures are charged against current earnings unless they relate to properties from which a productive result is reasonably certain or on which work is in process. Gains on sale or recoveries of costs previously written off are normally credited against exploration expense.

Income taxes:

Under the income tax laws, some costs and revenues are included in taxable income in years which are earlier or later than those in which they are included in income reported in the financial statements. As a result of these timing differences, income taxes currently payable normally differ from the provisions for taxes charged to earnings. The differences are shown in the consolidated balance sheet as "Taxes provided not currently payable".

Potential tax savings arising from losses incurred and investment tax credits are not reflected in earnings in the year they arise unless they are virtually certain to be realized.

Interest:

Generally interest expense is accrued and charged against income except interest that can be identified with a major capital expenditure program. Such interest is capitalized during the construction period.

Start-up costs:

Start-up costs on major projects are deferred until the facility achieves commercial production volumes. These deferred costs are written off over a reasonable period on either a straight-line or unit of production basis.

Research:

Research expense is charged against income as incurred.

Aluminum plant:

Certain of the assets and the related debt of the aluminum plant in the City of New Madrid, Missouri, while technically the property and obligation of the City, are carried on Noranda's books by virtue of its long-term lease option and unconditional guarantees.

- (b) As of January 1, 1977, the U.S. subsidiary companies and certain foreign affiliates, adopted the LIFO basis for determining the cost of major inventories. The effect of this change was to reduce the carrying value of inventories as of January 1, 1977 and December 31, 1977 and decrease the operating income before income taxes for the year by approximately \$4,600,000.

2. INVESTMENTS

- (a) Investments in and advances to associated and other companies consist of:

		Carrying Value (in thousands)	
	Noranda's Direct Interest	September 30, 1978	December 31, 1977
Investments carried on an equity basis			
British Columbia Forest Products Limited.....	29%	\$ 63,192	\$ 52,209
Craigmont Mines, Limited.....	20	3,742	3,599
Kerr Addison Mines Limited.....	41	27,497	26,454
Mattagami Lake Mines Limited (N.P.L.).....	34	40,895	37,438
Northwood Pulp and Timber Limited.....	50	46,349	39,006
Orchan Mines Limited.....	45	12,442	11,703
Pamour Porcupine Mines, Limited.....	49	3,286	1,591
Placer Development Limited.....	31	71,282	68,201
Tara Exploration and Development Company Limited (note 2 (c)).	41	47,319	35,427
Frialco/Friguia Guinean consortium.....	20	20,084	20,945
Other companies.....	—	51,185	50,866
		<u>387,273</u>	<u>347,439</u>
Other investments and advances			
Shares, at cost less amounts written off.....	—	11,134	10,789
Advances and other indebtedness (note 2 (c)).	—	15,057	28,951
		<u>\$413,464</u>	<u>\$387,179</u>

- (b) Included above are shares carried at a book value of \$290,041,000 which had a quoted market value of \$371,444,000 at September 30, 1978 (\$247,021,000 and \$280,647,000 respectively at December 31, 1977). The latter amount does not necessarily represent the value of these holdings, which may be more or less than indicated by market quotations.

- (c) \$20,340,000 of advances and other indebtedness at December 31, 1977 was secured by shares of Tara Exploration and Development Company Limited. Subsequent to the year end \$18,324,000 of this amount was settled through the purchase of an additional 17% of Tara's outstanding shares, raising the Company's interest to 41%. At September 30, 1978 the outstanding balance of these advances and other indebtedness was \$2,016,000.

- (d) During the period January 1, 1973 to September 30, 1978, the Company purchased a controlling interest in the following companies:

- (i) In 1973 a year-end purchase of additional shares of Brenda Mines Ltd. (Brenda), previously 50% owned, resulted in the consolidation of that company.
- (ii) During 1974 the Company acquired for cash 54.6% of the shares of Fraser Companies Limited (Fraser) and the results of its operations are reflected in the consolidated earnings statements from April 9, 1974, the date of acquisition.
- (iii) On January 8, 1975 Wire Rope Industries (previously 40% owned) became a consolidated subsidiary and on March 11, 1975, Northwood Mills Ltd., a wholly-owned subsidiary acquired all the outstanding shares of Aircrow-Weyroc Canada Limited (now Northwood Panelboard Ltd.). The results of operations of these companies have also been included in the consolidated earnings statement from dates of acquisition.

In the case of Fraser the net book value of the assets acquired exceeded the total cost to the Company by \$9,097,000. This difference was attributed to fixed assets and was deducted therefrom on the consolidated balance sheet.

In the case of Brenda, previously accounted for on an equity basis, no purchase discrepancy resulted from the acquisition referred to in (i) above and in the case of (iii) above the purchase discrepancy was not significant.

- (e) As of December 31, 1977, Northwood Mills Limited, a wholly-owned subsidiary, disposed of all of the outstanding shares of Northwood Panelboard Ltd. to Northwood Pulp and Timber Limited (a 50% owned company) for a cash consideration of \$1 and additional future consideration related to cash flow.

The effect of this transaction, and the payment of \$1,000,000 by Northwood Panelboard on its indebtedness to Northwood Mills, on Noranda's balance sheet is summarized below:

	(in thousands)
Reduction of non-current assets—	
Fixed.....	\$9,670
Other.....	1,066
	<u>10,736</u>
Reduction of long-term-debt.....	4,340
Non-current assets (net).....	6,396
Working capital increase.....	1,957
	<u>\$4,439</u>
Increase in investment and advances to associated companies.....	<u>\$4,439</u>

3. OTHER ASSETS	September 30, 1978	December 31, 1977
	(in thousands)	
Deferred development and start-up costs.....	\$103,510	\$ 96,740
Deferred exploration expenditures.....	16,028	19,074
Other deferred assets.....	7,908	8,149
Debenture and revenue bond discount and financing expenses, at cost less amortization.....	6,552	7,227
	<u>\$133,998</u>	<u>\$131,190</u>
4. DEBT		
(a) Long-term debt:	September 30, 1978	December 31, 1977
	(in thousands)	
Noranda Mines Limited		
9¾% notes due July 15, 1982.....	\$25,000	\$ 25,000
9¾% notes due November 1, 1980 (of which \$15,000,000 is payable in U.S. currency)..	25,398	25,398
7½% sinking fund debentures maturing October 1, 1988.....	23,868	24,124
9¼% sinking fund debentures maturing October 15, 1990.....	35,704	36,682
9¾% sinking fund debentures maturing May 1, 1994.....	48,050	50,000
Noranda Aluminum, Inc.		
10½% secured notes repayable at various dates up to October 1, 1995 (\$80,000,000 U.S.)..	81,360	81,360
5.30% and 5.90% industrial revenue bonds, maturing November 1, 1978 (\$2,800,000 U.S.) and sinking fund maturing November 1, 1993 (\$68,050,000 U.S.).....	76,295	76,047
8% pollution control revenue bonds due April 1, 2001 (\$10,500,000 U.S.).....	10,315	10,315
Norandex Inc.		
5½%-10% mortgage notes payable in monthly instalments to 2002 (September 30, 1978— \$6,638,000 U.S.; December 31, 1977—\$7,369,000 U.S.).....	7,138	7,875
Brunswick Mining and Smelting Corporation Limited		
5.85% first mortgage sinking fund bonds, series "A" maturing April 1, 1986.....	8,662	9,937
7.25% general mortgage sinking fund bonds, series "A" maturing August 15, 1987.....	10,464	10,746
11% general mortgage sinking fund bonds, series "B" maturing December 1, 1996.....	35,000	35,000
Fraser Companies, Limited		
6¼% sinking fund debentures series "A" maturing April 1, 1987 (September 30, 1978— \$6,750,000 U.S.; December 31, 1977—\$7,500,000 U.S.).....	7,368	8,109
10¾% sinking fund debentures series "B" maturing June 1, 1992 (\$35,000,000 U.S.).....	35,612	35,612
Sundry indebtedness.....	7,992	10,102
	<u>438,226</u>	<u>446,307</u>
Notes payable (note 4 (b))	234,869	241,895
	<u>673,095</u>	<u>688,202</u>
Debt due within one year (including notes payable of \$84,869,000—September 30, 1978; \$91,895,000—December 31, 1977).....	92,306	99,321
	<u>\$580,789</u>	<u>\$588,881</u>
Maturities of long-term debt are as follows: 1979—\$15,615,000; 1980—\$43,261,000; 1981—\$170,552,000; 1982—\$45,916,000 and subsequent—\$313,537,000.		
(b) \$150,000,000 of notes payable, representing promissory notes with varying maturities of less than one year from December 31, 1977 and September 30, 1978 respectively have been classified as long-term debt to the extent of the unconditional commitment the Company has received from its bankers for contractual term credits expiring December 31, 1981.		
(c) Accounts receivable and inventory of a subsidiary have been pledged as collateral for demand loans of \$19,500,000 to that company.		
5. COMMITMENTS AND CONTINGENT LIABILITIES		
(a) Approved capital projects and financing commitments outstanding total approximately \$110,000,000 at September 30, 1978 and \$79,000,000 at December 31, 1977.		
(b) The Company and its subsidiaries have guaranteed or are contingently liable for repayment of loans of associated and other companies to the extent of approximately \$42,000,000 at September 30, 1978 and \$33,000,000 at December 31, 1977.		
(c) As at September 30, 1978 Noranda's total unfunded obligations under its pension plans is estimated at \$28,000,000. These obligations are funded as required by applicable governing legislation. In Canada, the unfunded obligations will be funded and absorbed against income through annual instalments not exceeding \$2,000,000 over periods up to fourteen years. \$8,900,000 of the unfunded obligations relating to U.S. subsidiaries, will be amortized over periods up to forty years in annual instalments not exceeding \$500,000.		

- (d) The Company and certain of its subsidiaries from time to time enter into long-term lease arrangements for buildings such arrangements currently giving rise to annual charges totalling approximately \$3,000,000.
- (e) The Company is one of twenty-nine defendants, described as uranium producers and located in various countries, to a private antitrust action instituted by Westinghouse Electric Corporation in the United States District Court alleging the existence of a conspiracy among such producers to restrain interstate and foreign commerce in uranium. A second action alleging the existence of the same conspiracy has been brought against the company and seven other defendants by the Tennessee Valley Authority. It is expected that the damages ultimately claimed by the plaintiffs will be substantial.

The Company and three associated companies are among fifteen defendants in an action instituted in the Superior Court of the Province of Quebec by various groups of and individual Cree Indians for damages of \$8,034,000 and injunctive relief in respect of alleged environmental contamination and other interference with alleged territorial rights of the Cree Indians in Northern Quebec.

The Company is defending these actions and believes it has good defences on the merits.

- (f) During 1977 a series of disputes between Noranda Aluminum Inc. and Associated Electric Cooperative, Inc., resulted in a number of lawsuits being filed by Noranda Aluminum against Associated over the cost of power supplied and related matters. Noranda Aluminum has paid to Associated under protest and with reservation of rights \$3,400,000 U.S. relating to claims by Associated for the nine months ended March 31, 1977, \$1,300,000 U.S. for the period April 1 to June 30, 1977 and \$2,600,000 U.S. relating to the period July 1 to December 31, 1977. The amount of \$2,600,000 U.S. was charged to operations in 1977 and a further provision for the remaining estimated liability was made in 1978. In April 1978 the trial judge notified the parties of his intention to rule adversely to Noranda Aluminum on the interpretation of the contract between the parties during the period of dispute ended June 30, 1977.

6. SHAREHOLDERS' EQUITY

- (a) The issued capital stock is summarized below:

	September 30, 1978	December 31, 1977
	Shares	
Class A shares.....	22,536,981	22,332,853
Class B shares.....	2,075,105	2,131,658
Total.....	24,612,086	24,464,511
Less the Company's proportionate interest in its shares held by subsidiary and associated companies.....	882,367	882,367
	<u>23,729,719</u>	<u>23,582,144</u>

Dividends were declared as follows:

	For the Nine months ended September 30,		For the Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
Dividends per share—							
Class A	\$ 0.90	\$ 0.90	\$1.20	\$1.20	\$2.00	\$1.80	\$1.40
Class B.....	\$ 0.90	\$ 0.765	\$1.155	\$1.02	\$1.70	\$1.53	\$0.6375
Total dividends paid (in thousands)—							
Class A.....	\$20,190	\$19,987	\$26,649	\$26,630	\$46,206	\$41,594	\$33,222
Class B including 15% tax on undistributed income on dividends paid prior to March 31, 1977.....	1,871	2,031	2,708	2,723	2,711	2,290	854
	<u>22,061</u>	<u>22,018</u>	<u>29,357</u>	<u>29,353</u>	<u>48,917</u>	<u>43,884</u>	<u>34,076</u>
Less the Company's proportionate share of dividends paid to subsidiary and associated companies.....	793	793	1,059	1,056	1,764	1,547	1,211
Net charge to retained earnings....	<u>\$21,268</u>	<u>\$21,225</u>	<u>\$28,298</u>	<u>\$28,297</u>	<u>\$47,153</u>	<u>\$42,337</u>	<u>\$32,865</u>

Classes A and B shares are voting, convertible into one another on a share for share basis and rank equally with respect to dividends and in all other respects. The only distinction between the two classes is that the directors may specify that cash dividends on Class B shares be paid out of tax-paid undistributed surplus on hand or out of 1971 capital surplus on hand (as those expressions are defined in the Income Tax Act of Canada). After December 31, 1978 Class B dividends may no longer be paid from these categories of surplus.

- (b) (i) During the nine months ended September 30, 1978, 6,175 shares in the Company's capital stock were issued under the Company's stock option plan for \$162,338 and under the Company's share purchase plan 141,400 shares were issued for \$3,676,400.

- (ii) Under the provisions of the stock option plan, options were granted during the nine months ended September 30, 1978 on 137,400 shares exercisable up to July, 1986 at \$25.03 per share and options on 1,700 shares were cancelled.

At September 30, 1978 options on 181,500 shares were outstanding exercisable at prices varying from \$25.03 to \$28.50 for periods up to 1986.

(c) Under the Company's share purchase plan shares are sold to a trustee for resale to employees financed by an interest-free loan from the Company. At September 30, 1978 the amount of the loan included in accounts receivable was \$7,700,000.

7. INCOME TAXES

At September 30, 1978 and December 31, 1977 certain subsidiaries of the Company had estimated loss carry forwards of approximately \$9,600,000. Investment tax credits of \$7,700,000 are also available.

8. EXPLORATION EXPENSE

Gains on the sale of Noranda's interest in certain properties have been offset against exploration expenditures written off in the amount of \$4,724,000 in 1974 and \$9,000,000 in 1976.

9. OIL AND GAS PARTICIPATION AGREEMENTS

Under various agreements, other companies have agreed to participate in Noranda's oil and gas exploration and development program and are obligated to contribute up to \$98,000,000 with further options of \$129,000,000 in order to earn varying interests in lands covered by agreements. The participants' share of cumulative expenditures as at September 30, 1978 amounted to \$46,445,000 (December 31, 1977—\$38,664,000). The effect of these arrangements on Noranda's consolidated expenditures is set out below.

	Nine Months Ended September 30, 1978	Year Ended December 31, 1977
	(in thousands)	
Fixed assets	\$ 85,458	\$137,210
Development, exploration and other costs	30,331	72,287
	<u>115,789</u>	<u>209,497</u>
Less: Contributions under oil and gas participation agreements	7,781	38,664
Exploration costs written off	15,011	29,520
	<u>\$ 92,997</u>	<u>\$141,313</u>
Included in the Consolidated Statement of Changes in Financial Position as:		
Fixed assets and projects under construction	\$ 84,171	\$119,565
Deferred development, exploration and other expenditures	8,826	21,748
	<u>\$ 92,997</u>	<u>\$141,313</u>

Expenditures incurred subsequent to fulfilment of the participants' respective contributions will be shared with Noranda in proportion to the respective interests in the lands.

10. UNUSUAL ITEMS

(a) On September 22, 1978, Northwood Mills Limited, a wholly-owned subsidiary, disposed of its interest in two sawmills through the sale of all the outstanding shares of Northwood Properties Limited, realizing a gain of \$11,265,000.

The effect of this transaction on Noranda's financial statements is summarized below:

	(in thousands)
Reduction of non-current assets (net)	\$ 7,214
Working capital increase (net)	4,051
Gain on sale	<u>\$11,265</u>

(b) The aluminum reduction plant was shut down for two months in early 1978 due to the failure of Associated Electric Cooperative, Inc. to supply power during the last stages of a coal strike in the United States. Abnormal costs totalling \$11,718,000 after tax including estimated costs of shut-down and start-up and cost of emergency power have been shown separately in the accompanying consolidated statement of earnings.

11. ANTI-INFLATION PROGRAM

The Company and its subsidiaries and associated companies in Canada are subject to, and believe they have complied with, controls on prices, profits, employee compensation and shareholder dividends under the Federal Government's Anti-Inflation Program.

12. SUBSEQUENT EVENTS

(a) Proposed Amalgamation and Merger.

It is proposed that the Company amalgamate with Orchan Mines Limited and merge with Mattagami Lake Mines Limited in two separate transactions. The Company will proceed with each transaction independently of the other.

Under the amalgamation proposal, the Company and Orchan will amalgamate and continue as one corporation. As a result of the amalgamation, the shareholders of the Company will receive one share of the amalgamated corporation for each share of the Company held and the shareholders of Orchan will receive one share of the amalgamated corporation for each six shares of Orchan held.

Under the merger proposal, the shareholders of Mattagami will receive one share of Noranda for each two and one-quarter shares of Mattagami held, either upon acceptance of a share exchange offer by Noranda or upon a distribution of the assets of Mattagami as part of winding up proceedings.

(b) Dividend Declaration.

The directors have declared a dividend of 40¢ per share payable December 15, 1978 to shareholders of record November 24, 1978.

(c) Proposed Sale of Bell Copper Mine.

An agreement has been reached to sell the Bell Copper mine and concentrator, subject to the approval of the sale under the Foreign Investment Review Act (Canada), for a price of \$22 million plus working capital plus up to an additional \$3 million contingent upon satisfactory expansion of the concentrator capacity by Noranda. If this sale is completed a gain will be realized.

(d) Purchase of Aluminum Casting, Sheet and Foil Plant.

Noranda Aluminum has agreed to purchase an aluminum casting, sheet and foil plant with a capacity of 40,000 tons of sheet and foil products, effective January 2, 1979, for a price of approximately \$40 million U.S. including working capital.

Auditors' Report

To the Directors of
Noranda Mines Limited

We have examined the consolidated balance sheet of Noranda Mines Limited as at December 31, 1977 and the consolidated statements of earnings, retained earnings and changes in financial position for the five years then ended. Our examination of the financial statements of Noranda Mines Limited and those subsidiaries and associated companies of which we are the auditors was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. We have relied on the reports of the auditors who examined the financial statements of the other subsidiaries and associated companies.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the five years then ended in accordance with generally accepted accounting principles which, except for the change described in note 1 (b), with which we concur, have been applied on a consistent basis throughout the period.

Toronto, Canada
February 13, 1978

(Signed) CLARKSON, GORDON & CO.

Chartered Accountants

ORCHAN MINES LIMITED

Orchan

Orchan Mines Limited ("Orchan") was incorporated in 1953 under the laws of Ontario. Its head office is at Commerce Court West, Toronto, Ontario and its mine office is at Matagami, Quebec. The shares of Orchan are listed on the stock exchanges of Toronto and Montreal.

Principal Holders of Securities

Noranda Mines Limited and its subsidiaries (collectively referred to herein as "Noranda") own 2,743,862 Class A shares of Orchan or 45.3% of the outstanding equity of Orchan. Kerr Addison Mines Limited owns 648,000 Class A shares and Pamour Porcupine Mines, Limited owns 225,000 Class A shares or 10.7% and 3.7% respectively of the outstanding equity of Orchan. In turn, Noranda Mines Limited has a 41.2% direct interest in Kerr Addison and has a 48.8% direct interest in Pamour.

Dealings with Noranda

Under various agreements Noranda provides management services to Orchan, smelts and refines copper concentrates produced by Orchan, markets the zinc, copper and byproduct metals produced by Orchan and participates with Orchan in some exploration activities in northwestern Quebec.

Business of Orchan

Orchan owns and operates two small zinc-copper mines, the Orchan Mine and the Norita Mine, in the Matagami area of Quebec, and owns two partially developed mine properties in the Matagami area. Orchan owns a 15.83% interest in the electrolytic zinc reduction plant located at Valleyfield, Quebec administered by Canadian Electrolytic Zinc Limited and 18.75% of General Smelting Company of Canada Limited which owns 40% of Federated Genco Limited. Federated Genco produces lead, zinc and aluminum alloys from both primary and scrap metal. Orchan has maintained an active exploration program in the Matagami area of Quebec and owns 25% of Mining Corporation of Canada Limited which does mine evaluations, engineering, development and plant installations on a contract basis.

Due to weak markets for zinc and high inventories of concentrate and metal, Orchan suspended mine production for the month of December, 1977, part of the month of January, 1978, and several weeks in the summer of 1978. The minesite net loss for the first 9 months of 1978 was \$1,212,000 after provision for depreciation and amortization in the amount of \$1,155,000 and after exploration and development expenses in the Norita Mine. Operations in the fourth quarter of 1978 are at a rate sufficient to supply Orchan's share of zinc concentrate to the electrolytic zinc reduction plant.

Improved demand for zinc in the last half of 1978 together with mine production cut-backs have resulted in lower inventory levels in the industry and higher metal prices. Markets for copper also improved. The combined effect of higher metal prices on inventory valuations, the lower value of the Canadian dollar, and increased zinc sales has improved earnings attributable to the zinc reduction plant sufficient to offset the mine operating losses and to provide net earnings for Orchan for the first nine months of 1978 of \$1,647,000 or 27.2¢ per share. Dividends, which had been suspended in March, 1975 to conserve cash to finance necessary mine development, expansion of the zinc reduction plant facilities and increased inventories, will be resumed with an interim payment of 10¢ per Class A and Class B share on December 13, 1978. An additional dividend of 15¢ per Class A and Class B share has been declared payable December 22, 1978.

Mining and Milling Operations

Production from the Orchan and Norita Mines together with production from the Garon Lake Mine, which ceased operations in 1975, for the five years and nine months ended September 30, 1978 is set out below:

	Nine months ended September 30, 1978	Years ended December 31,				
		1977	1976	1975	1974	1973
ORCHAN MINE:						
Ore milled (tons)...	106,281	228,337	264,130	230,937	219,870	270,100
Average grade:						
Zinc (%).....	6.90	6.69	6.46	7.22	6.96	7.39
Copper (%)...	0.73	0.74	0.91	0.98	1.00	0.97
NORITA MINE:						
Ore milled (tons)...	205,915	331,435	203,537	—	—	—
Average grade:						
Zinc (%).....	5.79	6.12	7.11	—	—	—
Copper (%)...	0.42	0.40	0.61	—	—	—
GARON LAKE MINE:						
Ore milled (tons)...	—	—	—	190,867	144,160	180,130
Average grade:						
Zinc (%).....	—	—	—	1.55	1.47	3.53
Copper (%)...	—	—	—	1.46	1.45	1.45
Metal content of concentrates produced:						
Zinc (tons).....	16,548	31,122	27,357	16,490	14,223	21,853
Copper (tons).....	1,131	2,114	2,742	4,271	3,556	4,248
Silver (ounces).....	57,442	192,761	162,800	65,800	58,397	93,993
Gold (ounces).....	518	1,833	2,152	1,041	997	1,210

The ores from the mines are treated separately in the Orchan mill which has a capacity of 1,900 tons per day. The zinc concentrate is treated at the zinc reduction plant described below. The copper concentrate is smelted and refined by Noranda.

Mineral Inventory

Orchan's inventory of minerals at December 31, 1977 together with the recent Norita "A" zone discovery described below was estimated by Orchan as follows:

	Tons	Grade			
		Zinc (%)	Copper (%)	Silver (ounces per ton)	Gold
Orchan Mine—proven.....	639,000	6.2	0.8	0.7	0.01
Norita Mine—drill indicated					
—original ore body.....	1,430,040	6.4	0.6	0.7	0.01
—"A" zone (discovered in 1978)...	2,000,000	4.5	2.7	1.02	0.02
Radiore No. 2 Division—drill indicated.....	153,340	1.0	2.0	0.2	0.01

Development and Exploration Properties

In 1976, Orchan acquired a property, known as the P.D. Division, located about 25 miles west of the Orchan mill with a drill indicated mineral inventory of 1,545,000 tons averaging 4.5% zinc, 0.9% copper and 0.5 ounce per ton of silver. Following the expenditure of approximately \$2.7 million in preparation for collaring a deep shaft and a decline adit, work on this property was suspended in 1977, pending completion of an all-weather truck access road to the property and due to depressed markets for zinc. Orchan estimates that an additional expenditure of \$7.5 million will be required to bring the property to production. The Quebec Government recently has completed the access road and work will be resumed when justified by prices for metals in concentrates. Under a separate exploration agreement Orchan has

the right to acquire a 51% interest in certain nearby exploration properties held by Phelps Dodge Corporation of Canada Limited. As of September 30, 1978, Orchan continued to hold 192 claims in this group. Orchan has staked an additional 190 claims in this area for further exploration work.

Development work on the small Radiore No. 2 Division property was suspended in 1974 due to weak copper markets, but resumption is scheduled in 1979.

Exploratory diamond drilling early in 1978 resulted in the discovery of a new ore body called the Norita "A" zone at the Norita Mine. Drill-indicated ore reserves at September 30, 1978 were estimated at 2,000,000 tons with average grades of 4.5% zinc, 2.7% copper and 1.02 ounces of silver per ton and 0.02 ounce of gold per ton. The exploration of the Norita "A" zone is continuing with potential still open to the east and possibly to depth on the westerly sections. Production from this zone is scheduled to begin in the summer of 1979.

The Norita property is part of the North Belt in the Matagami area of Quebec. Orchan and/or Noranda own, subject to royalty or option agreements, approximately eight miles of favourable strike length in the North Belt. They have equal interests in the Bell Channel and Dumagami properties on strike and to the east of the Norita property. Orchan owns the Garon Lake property which adjoins east of the Dumagami property and includes the Garon Lake Mine. Noranda owns the Radiore property on strike and immediately west of the Norita property. Further intensive exploration is required on these properties as a result of the Norita "A" zone extending to greater depths than previously encountered in the Matagami area.

Orchan and Noranda, on a one-third and a two-thirds basis respectively, have acquired the Barvue and Vendome properties in Barraute and Fiedmont townships in northwestern Quebec some 60 miles east of Rouyn-Noranda. Mineral inventories for these properties are:

	<u>Tons</u>	<u>Grade</u>			
		<u>Zinc</u> (%)	<u>Copper</u> (%)	<u>Silver</u> (ounces per ton)	<u>Gold</u>
Barvue.....	5,152,000	3.5	—	1.3	—
Vendome—proven.....	630,000	7.4	0.45	1.53	0.029
—indicated.....	300,000	7.0	0.21	0.61	0.011

Norita Agreements

Orchan acquired the Norita Mine property on December 28, 1972 under separate agreements with Norita Quebec Mines Limited (a company not affiliated with either Orchan or Noranda Mines Limited) and Noranda Mines Limited. Each of Norita Quebec and Noranda Mines Limited is entitled to receive \$500,000, payable at the rate of 25¢ per ton of ore milled. In addition, Norita Quebec is entitled to a royalty of 25% of the net profit attributable to all ore mined from the property, after Orchan has recovered its full investment with interest. Noranda Mines Limited may earn a royalty of 37½% of the net profit earned on all production in excess of 2,000,000 tons from the Norita Mine property if it elects to share the related exploration, development and production costs equally with Orchan. With the discovery of the Norita "A" zone it is expected that production from the Norita property will eventually exceed 2,000,000 tons.

Zinc Reduction Plant (15.83% direct)

Orchan owns a 15.83% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec which is administered by Canadian Electrolytic Zinc Limited. Mattagami Lake Mines Limited, through a wholly-owned subsidiary, owns a 51.67% interest in the plant, Noranda Mines Limited owns a 22.67% interest, and two wholly-owned subsidiaries of Kerr Addison Mines Limited own the remaining 9.83% interest. The plant converts concentrates produced or purchased by its owners into zinc metal and cadmium and has a capacity of 225,000 tons of zinc metal a year.

Due to depressed markets for zinc and high inventory levels, the plant operated at about 70% of capacity in 1977 and early 1978. The markets for zinc have improved in recent months and the plant will

operate at an average of about 78% of capacity for this year. Inventories of zinc concentrate and metal have been reduced.

Production for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>
Zinc (tons).....	155,550	125,800	117,700	134,800	148,800
Cadmium (pounds).....	928,200	380,000	401,000	772,000	598,000

The five-year power contract with Hydro-Quebec for the plant recently expired and a new contract is being negotiated. The cost of power will be increased substantially under the new contract.

Pending Legal Proceedings

Orchan, Noranda Mines Limited and Mattagami Lake Mines Limited are among 15 defendants in an action instituted in the Superior Court of the Province of Quebec for the District of Montreal on or about November 25, 1976 by individual and groups of Cree Indians for damages of \$8,034,000 and injunctive relief in respect of alleged environmental contamination and other interference with alleged aboriginal and territorial rights of the Cree Indians in northern Quebec. Orchan is defending this action and believes it has a good defence on the merits.

In 1963 an action was commenced in the Superior Court of Quebec in which the Plaintiff requested the Court to declare the nullity of the mining concession and the patent therefor issued to Orchan (comprising the whole of the Orchan Mine property) and to declare valid and legal the staking by the Plaintiff of certain mining claims covered by this mining concession. Orchan thereupon filed a defence and Inscription in Law, and since that time no further proceedings have been made by the Plaintiff. It is considered that the action is ill founded.

Dividend Record

Orchan has paid a total of approximately \$16.3 million in dividends in the ten-year period from 1968 through 1977 inclusive, including dividends of 15¢ per share in 1968, 40¢ per share in the years 1969 to 1973 inclusive, 46¢ per share in 1974 and 8¢ per share in 1975. The board of directors of Orchan has declared an interim dividend of 10¢ per Class A and Class B share payable December 13, 1978 to shareholders of record November 15, 1978 and an additional dividend of 15¢ per Class A and Class B share payable December 22, 1978 to shareholders of record December 11, 1978.

ORCHAN MINES LIMITED
(Incorporated under the laws of Ontario)

Consolidated Balance Sheet

(in thousands of dollars)

Assets	September 30, 1978 (unaudited)	December 31, 1977
CURRENT ASSETS:		
Cash and short-term deposits.....	\$ 745	\$ 77
Marketable investments, at cost (quoted market value \$2,187,000; 1977 \$1,892,000).....	2,106	2,106
Accounts receivable.....	34	163
Metals and concentrates on hand, in transit or due for settlement, at estimated net realizable value.....	13,037	13,143
Stores and prepaid expenses, at cost.....	551	600
	<u>16,473</u>	<u>16,089</u>
INVESTMENTS IN AND ADVANCES TO ASSOCIATED COMPANIES.....	2,034	1,967
FIXED ASSETS, AT COST		
Land, buildings and equipment		
Mine sites.....	12,689	12,689
Zinc reduction plant.....	13,616	13,472
	<u>26,305</u>	<u>26,161</u>
Less accumulated depreciation.....	16,805	15,894
	<u>9,500</u>	<u>10,267</u>
Mining properties and claims, at cost less amortization.....	1,476	1,596
P. D. Division under construction.....	2,599	2,551
	<u>13,575</u>	<u>14,414</u>
PREPRODUCTION AND DEFERRED DEVELOPMENT EXPENDITURES, at cost less amortization.....	3,328	3,772
	<u>\$35,410</u>	<u>\$36,242</u>
Liabilities		
CURRENT LIABILITIES:		
Bank loans and acceptances.....	—	\$ 2,000
Accounts payable (including \$399,000 payable to affiliated companies; 1977 \$699,000).....	\$ 966	1,319
Taxes payable.....	928	881
Due on mining properties.....	—	100
	<u>1,894</u>	<u>4,300</u>
TAXES PROVIDED NOT CURRENTLY PAYABLE.....	4,620	4,590
DUE ON MINING PROPERTIES (note 2).....	<u>1,019</u>	<u>1,122</u>
SHAREHOLDERS' EQUITY:		
Capital stock (note 3) —		
Authorized:		
6,499,000 class A and class B interchangeable participating shares of \$1 each		
1,000 common shares of \$1 each		
Issued:		
6,058,720 class A and class B shares.....	6,059	6,059
Less net discount.....	2,614	2,614
	<u>3,445</u>	<u>3,445</u>
Retained earnings.....	24,432	22,785
	<u>27,877</u>	<u>26,230</u>
	<u>\$35,410</u>	<u>\$36,242</u>

(See accompanying notes to consolidated financial statements)

On behalf of the Board
(Signed) D. E. G. SCHMITT, Director

(Signed) R. A. CRANSTON, Director

ORCHAN MINES LIMITED

Consolidated Statements of Earnings and Retained Earnings

(in thousands of dollars)

	Nine months ended September 30,		Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited)						
EARNINGS							
Revenue—from metals and concentrates	\$18,806	\$15,033	\$19,931	\$18,421	\$17,712	\$19,265	\$15,957
Expense:							
Cost of production	15,246	11,401	16,067	14,640	12,659	10,762	8,539
Administrative expense	189	178	241	311	235	188	163
Depreciation (note 4)	911	853	1,096	993	978	1,149	979
Amortization of mining properties, preproduction and deferred de- velopment	568	739	915	432	434	272	675
Interest	157	310	142	778	306	—	—
	17,071	13,481	18,461	17,154	14,612	12,371	10,356
Operating income	1,735	1,552	1,470	1,267	3,100	6,894	5,601
Investment income:							
Share of earnings of associated com- panies	92	61	61	133	41	274	276
Dividend income	55	63	80	97	183	186	168
Interest income	273	130	294	699	372	260	218
	420	254	435	929	596	720	662
Earnings before taxes	2,155	1,806	1,905	2,196	3,696	7,614	6,263
Income and production taxes	508	571	370	579	1,507	2,484	1,830
Net earnings	\$ 1,647	\$ 1,235	\$ 1,535	\$ 1,617	\$ 2,189	\$ 5,130	\$ 4,433
Earnings per share	\$0.27	\$0.20	\$0.25	\$0.27	\$0.36	\$0.85	\$0.73
RETAINED EARNINGS							
Balance, beginning of period (note 5) . .	\$22,785	\$21,250	\$21,250	\$19,633	\$17,929	\$15,586	\$13,576
Net earnings	1,647	1,235	1,535	1,617	2,189	5,130	4,433
	24,432	22,485	22,785	21,250	20,118	20,716	18,009
Dividends (note 8)	—	—	—	—	485	2,787	2,423
Balance, end of period	\$24,432	\$22,485	\$22,785	\$21,250	\$19,633	\$17,929	\$15,586

(See accompanying notes to consolidated financial statements)

ORCHAN MINES LIMITED

Consolidated Statement of Changes in Financial Position

(in thousands of dollars)

	Nine months ended September 30,		Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited)						
WORKING CAPITAL, BEGINNING OF PERIOD...	\$11,789	\$10,327	\$10,327	\$ 8,824	\$ 9,394	\$10,709	\$10,235
SOURCE OF FUNDS:							
From operations—							
Net earnings.....	1,647	1,235	1,535	1,617	2,189	5,130	4,433
Add charges (deduct credits) not requiring an outlay (receipt) of funds:							
Share of earnings less dividends of associated companies...	(67)	(61)	(61)	(133)	(1)	(243)	(276)
Depreciation.....	911	853	1,096	993	978	1,149	979
Amortization.....	568	739	915	432	434	272	675
Taxes provided not currently payable.....	30	565	244	1,353	946	524	52
Loss on disposal of fixed assets..	—	—	—	—	63	13	106
	3,089	3,331	3,729	4,262	4,609	6,845	5,969
Decrease (increase) in investments and advances.....	—	—	12	250	(223)	170	124
Increase in long-term debt.....	—	—	—	540	—	—	—
Other items (net).....	—	—	24	—	774	(487)	—
	3,089	3,331	3,765	5,052	5,160	6,528	6,093
APPLICATION OF FUNDS:							
Fixed assets and projects under construction.....	144	341	1,924	3,286	2,608	547	2,567
Preproduction and deferred development	52	1,338	113	122	2,637	4,479	584
Reduction of long-term debt.....	103	193	266	141	—	30	45
Dividends paid.....	—	—	—	—	485	2,787	2,423
	299	1,872	2,303	3,549	5,730	7,843	5,619
Net increase (decrease) in working capital..	2,790	1,459	1,462	1,503	(570)	(1,315)	474
WORKING CAPITAL, END OF PERIOD.....	\$14,579	\$11,786	\$11,789	\$10,327	\$ 8,824	\$ 9,394	\$10,709

(See accompanying notes to consolidated financial statements)

ORCHAN MINES LIMITED

Notes to Consolidated Financial Statements

(Information as at September 30, 1978 and for the nine months ended September 30, 1978 and September 30, 1977 is unaudited)

1. SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of consolidation—

The consolidated financial statements include the accounts of the company and its subsidiaries, all of which are wholly-owned, and the company's proportionate share of assets, liabilities, revenues and expenses of joint ventures.

(b) Investments—

Marketable investments are carried at cost and investments in and advances to associated companies are carried at cost adjusted by the company's equity in income or losses since the date of investment.

(c) Inventories—

Metals and concentrates on hand, in transit or due for settlement are recorded at estimated net realizable value and other inventories at the lower of cost or market.

(d) Depreciation and amortization—

Mine site and zinc plant assets are being depreciated over their estimated useful life; for the Orchan Mine to December 31, 1978, for the Norita Mine to December 31, 1982, and for the zinc plant to December 31, 1995.

Mining properties and claims and preproduction and deferred development costs are being amortized on the unit of production basis.

(e) Interest—

Generally interest expense is charged against income as incurred except interest on debt for major capital expenditure programs. In these circumstances interest is capitalized during the construction period.

(f) Income and mining taxes—

The company follows the deferral method of income and mining tax allocation. Deferred income and mining taxes result from claiming deductions for tax purposes (principally unrealized profit in inventories, depreciation, preproduction and development expenditures, and mining properties and claims) in excess of amounts charged in the accounts.

2. MINING PROPERTIES

(a) Balance due—

The balance due on mining properties does not bear interest. \$619,000 is payable with respect to the Norita site proportionately to production of the first 2,000,000 tons of ore milled (of which 740,000 tons have been milled to September 30, 1978). One-half of this amount is due to Noranda Mines Limited. The balance of \$400,000 is payable with respect to the P.D. Division site at the rate of \$100,000 annually for each year of production.

(b) Norita agreements—

Under an agreement with Norita Quebec Mines Limited (a company not affiliated with either Orchan or Noranda Mines Limited), Norita Quebec is entitled to a royalty of 25% of the net profit attributable to all ore mined from the Norita site, after Orchan has recovered its full investment with interest. Under an agreement with Noranda Mines Limited, Noranda may earn a royalty of 37½% of the net profit earned on all production in excess of 2,000,000 tons if Noranda elects to share the related exploration, development and production costs equally with Orchan.

3. CAPITAL STOCK

The issued capital stock is summarized below:

	September 30, 1978	December 31, 1977
Class A.....	5,872,974	5,850,839
Class B.....	185,746	207,881
Total.....	<u>6,058,720</u>	<u>6,058,720</u>

Class A and Class B shares are voting, interchangeable on a share-for-share basis, and rank equally with respect to dividends and in all other respects. The only distinction between the two classes is that the directors may specify that cash dividends on Class B shares be paid out of 1971 tax-paid undistributed surplus on hand or out of 1971 capital surplus on hand (as those expressions are defined in the Income Tax Act of Canada). After December 31, 1978 Class B dividends may no longer be paid from these categories of surplus.

4. DEPRECIATION

(a) Orchan mine—

As a result of a re-estimation of the remaining life of the Orchan mine the company changed in 1975 from depreciating mine assets to December 31, 1976 to depreciating them to December 31, 1978. As a result of the change, depreciation charges in 1975 were lower and earnings before tax were higher by \$397,000 or 6.5¢ per share (4¢ per share after tax).

(b) Zinc reduction plant—

At December 31, 1975 the company owned 18.75% of a zinc reduction plant, which was being depreciated to 1981. Effective January 1, 1976 new expanded facilities commenced production and the depreciation rate was changed to 5% per annum, on a straight line basis, and Orchan's ownership share became 15.83%.

5. INCOME AND PRODUCTION TAXES

During 1973 the company changed from recording income and production taxes on a taxes payable basis to recording them on a tax allocation basis. This change added \$52,000 to the 1973 provision for taxes, and the balance of retained earnings at the beginning of 1973 was reduced by \$1,470,000 from the amount previously reported as this change was given retroactive effect.

6. CONTINGENT LIABILITIES

In 1963 an action was commenced in the Superior Court of Quebec in which the Plaintiff requested the Court to declare the nullity of the mining concession and the patent therefor issued to Orchan Mines Limited (comprising the whole of the Orchan Mine property) and to declare valid and legal the staking by him of certain mining claims covered by this mining concession. The company thereupon filed a defence and Inscription in Law, and since that time no further proceedings have been made by the Plaintiff. In the opinion of the company's solicitors, the action is ill founded.

The company is among fifteen defendants in an action instituted in the Superior Court of the Province of Quebec for the District of Montreal on or about November 25, 1976 by various groups of and 343 individual Cree Indians for damages of \$8,034,000 and injunctive relief in respect of alleged environmental contamination and other interference with alleged aboriginal and territorial rights of the Cree Indians in northern Quebec. The company is defending this action and believes it has a good defence on the merits.

7. ANTI-INFLATION LEGISLATION

The company is subject to, and believes it has complied with, controls on prices, profits, employee compensation and shareholder dividends under the Federal Anti-Inflation Program.

8. SUBSEQUENT EVENTS

(a) Dividend declarations—

The directors have declared an interim dividend of 10¢ per Class A and Class B share payable December 13, 1978 to shareholders of record November 13, 1978 and an additional dividend of 15¢ per Class A and Class B share payable December 22, 1978 to shareholders of record December 11, 1978.

(b) Proposed amalgamation—

It is proposed that Orchan amalgamate with Noranda Mines Limited. Under the amalgamation proposal, Orchan and Noranda will continue as one corporation and the shareholders of Orchan will receive one share of the amalgamated corporation for each six shares of Orchan held and the shareholders of Noranda will receive one share of the amalgamated corporation for each share of Noranda held.

Auditors' Report

To the Directors of
Orchan Mines Limited

We have examined the consolidated balance sheet of Orchan Mines Limited as at December 31, 1977 and the consolidated statements of earnings and retained earnings and changes in financial position for the five years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the five years then ended in accordance with generally accepted accounting principles applied on a consistent basis throughout the period.

Toronto, Canada
February 6, 1978

(Signed) CLARKSON, GORDON & Co.
Chartered Accountants

MATTAGAMI LAKE MINES LIMITED

Mattagami

Mattagami Lake Mines Limited ("Mattagami") was incorporated in 1958 under the laws of Quebec. Its head office is at Matagami, Quebec and its executive office is at Commerce Court West, Toronto, Ontario. The shares of Mattagami are listed on the stock exchanges of Toronto and Montreal.

Principal Holders of Securities

Noranda Mines Limited (together with its subsidiaries herein collectively referred to as "Noranda") owns 4,516,100 Class A common shares without par value of Mattagami or 34.1% of the outstanding equity of Mattagami. Placer Development Limited ("Placer") owns 3,592,152 Class A common shares without par value or 27.1% of the outstanding equity of Mattagami. In turn, Noranda has a 31.4% interest in Placer.

Dealings with Noranda

Under various agreements Noranda provides management services to Mattagami and its 60% owned subsidiary, Mattabi Mines Limited ("Mattabi"), smelts and refines copper concentrates produced by their mines and markets the metals and concentrates produced by them.

Business of Mattagami

Mattagami operates a zinc-copper mine in Quebec, is developing mines in Ontario and has an active exploration program. Its principal subsidiaries are Mattagami Refining Inc., which has a 51.67% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec, and Mattabi, which operates a zinc-copper-lead-silver mine in Ontario.

Base metal markets were generally depressed from late in 1974 until mid-1978. Demand for copper fell early in this period while industry production remained high. As a result inventories rose and prices fell by over 50%. Demand recovered in 1976 and 1977 but inventories remained high and prices remained at relatively low levels. Further improvements in demand have reduced inventories in 1978 and prices have increased. Demand for zinc fell even more than demand for copper and the recovery in demand has been slower. Zinc prices remained steady in the face of mounting inventories until mid-1977 when the first of several sharp price declines occurred. In response to improved demand and production cut backs in 1978, zinc prices have increased from the lows reached in early 1978. The decline in value of the Canadian dollar in 1977 and 1978 has improved price realizations.

As a result of these market conditions, Mattagami's consolidated earnings fell sharply from \$40.1 million in 1974 to \$11.6 million in 1977. In the first quarter of 1978 earnings were only \$83,000. Higher prices and improved demand in the second and third quarters of 1978 have resulted in higher earnings for that period and substantially reduced inventories. The net income in the second quarter of 1978 was \$4.5 million and in the third quarter of 1978 was \$7.9 million, the best quarter since the first quarter of 1975. The earnings of Mattagami have been particularly subject to fluctuations in 1977 and 1978 as a result of (a) dramatic changes in metal prices coupled with Mattagami's policy of valuing production on the basis of estimated net realizable values and (b) foreign exchange fluctuations.

After paying regular quarterly dividends since March, 1967, including the dividend of 10¢ per share paid in the first quarter of 1978, Mattagami did not pay dividends in the second and third quarters of 1978. With the improved income and cash position in the third quarter of 1978, a dividend of 10¢ per share has been declared for the fourth quarter.

Mattagami Mine (wholly-owned)

The Mattagami mine located in the Matagami area of Quebec is a zinc-copper producer which was brought into production in October, 1963. Ore is treated at the concentrator at the mine which has a designed capacity to treat 3,850 tons per day.

The following table shows the production of the Mattagami mine for the five years ended December 31, 1977:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Ore milled (dry tons).....	1,043,000	1,226,000	1,285,703	1,406,765	1,387,000
Average grade:					
Zinc (%).....	6.6	7.3	7.3	7.5	7.4
Copper (%).....	0.52	0.55	0.62	0.62	0.57
Silver (ounce per ton).....	0.90	0.93	0.86	0.88	0.84
Gold (ounce per ton).....	0.014	0.014	0.014	0.017	0.016
Metal content of concentrates produced:					
Zinc (tons).....	63,757	81,495	86,148	96,736	92,970
Copper (tons).....	4,142	4,995	5,997	6,624	5,929
Silver (ounces).....	290,425	304,042	266,984	242,160	218,749
Gold (ounces).....	4,244	4,190	4,479	4,697	3,562

Virtually all of the zinc concentrate production is treated at the electrolytic zinc reduction plant at Valleyfield, Quebec. The copper concentrate is smelted and refined by Noranda.

The proven ore reserves of the Mattagami mine at December 31, 1977, as estimated by Mattagami, totalled 8,595,000 tons averaging 7.2% zinc, 0.58% copper and 0.90 ounce of silver per ton and 0.015 ounce of gold per ton.

Lyon Lake Division (wholly-owned)

Development work has been suspended since November 30, 1977 on the Lyon Lake mine in north-western Ontario, five miles east of the Mattabi mine, pending better market conditions. There are five known ore zones on this property, the last and deepest of which was discovered during the spring of 1974 while drilling a pilot hole on a potential shaft site. No tonnage has been placed on this deep ore zone which lies approximately 900 feet below one of the other four ore zones. The fifth ore zone was tested with four drill holes that resulted in a strike length of about 1,000 feet which appeared to be open in all directions.

Geological ore reserves on the other Lyon Lake ore zones are estimated by Mattagami to be 4,033,000 tons averaging 6.66% zinc, 1.15% copper, 0.63% lead, 3.39 ounces of silver per ton and 0.01 ounce of gold per ton. It is proposed that this property be reactivated for production at the rate of 1,000 tons per day by mid-1980.

F Group (wholly-owned)

Exploration work has been completed on the F Group orebody in northwestern Ontario, two and one-half miles west of the Mattabi mine. This small orebody has mineable ore reserves estimated by Mattagami to be 630,000 tons averaging 8.10% zinc, 0.98% copper, 0.49% lead and 1.80 ounces of silver per ton. It is proposed that this ore body be brought into production in 1981.

Exploration Division

Exploration programs during 1978 in Canada have been carried out in the Provinces of New Brunswick, Quebec, Ontario, British Columbia and the Yukon Territory. In addition, Mattagami continued to participate in the Iberian Explorations Syndicate which is exploring for economic mineral deposits in southern Spain.

Mattagami's mineral land status in Canada at the end of September, 1978 totalled 360,291 acres of optioned and staked claims, leases and permit lands. Of that total, 24,719 acres were staked in the vicinity of Joutel, Quebec to cover a number of airborne anomalies. Diamond drill testing of one anomaly has resulted in the discovery of interesting gold-silver mineralization, but has not yet outlined an ore deposit.

Mattabi Mines Limited (60%-interest)

Mattagami has a 60% interest and Abitibi Paper Company Ltd. a 40% interest in Mattabi which has operated a zinc-copper-lead-silver mine in the Sturgeon Lake area of northwestern Ontario since production commenced in mid-1972.

The following table shows the production of the Mattabi mine for the five years ended December 31, 1977:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Ore milled (dry tons).....	1,030,000	1,066,000	1,075,000	1,139,000	1,112,000
Average grade:					
Zinc (%).....	8.40	8.13	7.34	8.81	11.37
Copper (%).....	1.01	1.23	0.97	0.91	1.10
Lead (%).....	0.84	0.76	0.70	0.91	1.06
Silver (ounces per ton).....	3.54	3.53	3.23	4.31	5.31
Gold (ounce per ton).....	—	0.007	0.007	—	0.009
Metal content of concentrates produced:					
Zinc (tons).....	76,185	75,612	68,665	89,753	112,192
Copper (tons).....	8,993	10,899	8,702	8,621	9,835
Lead (tons).....	4,290	2,256	2,000	4,355	4,752
Silver (ounces).....	2,698,615	2,505,178	2,123,150	3,409,000	4,182,324

The major portion of the production of zinc concentrates is exported with the balance being treated at the electrolytic zinc reduction plant at Valleyfield, Quebec. The copper concentrates are smelted and refined by Noranda and the lead concentrates are sold to smelters in western Canada or the western United States.

Mineable ore reserves at the Mattabi mine at December 31, 1977, as estimated by the company, were 5,100,000 tons averaging 7.20% zinc, 0.59% copper, 0.74% lead and 2.77 ounces of silver per ton.

Zinc Reduction Plant (51.67% indirect)

Mattagami, through its wholly-owned subsidiary Mattagami Refining Inc., owns a 51.67% interest in the electrolytic zinc reduction plant at Valleyfield, Quebec which is administered by Canadian Electrolytic Zinc Limited. Noranda Mines Limited owns a 22.67% interest in the plant, Orchan Mines Limited has a 15.83% interest and two wholly-owned subsidiaries of Kerr Addison Mines Limited own the remaining 9.83% interest. The plant converts concentrates produced or purchased by its owners into zinc metal and cadmium and has a capacity of 225,000 tons of zinc metal a year.

Due to depressed markets for zinc and high inventory levels, the plant operated at about 70% of capacity in 1977 and early 1978. The markets for zinc have improved in recent months and the plant will operate at an average of about 78% of capacity for this year. Inventories of zinc concentrate and metal have been reduced.

Production for the five years ended December 31, 1977 is shown in the following table:

	Years ended December 31,				
	1977	1976	1975	1974	1973
Zinc (tons).....	155,550	125,800	117,700	134,800	148,800
Cadmium (pounds).....	928,200	380,000	401,000	772,000	598,000

The five-year power contract for the plant with Hydro-Quebec recently expired and a new contract is being negotiated. The cost of power will be increased substantially under the new contract.

Federated Genco Limited (25% indirect interest)

Mattagami owns a 62.5% interest in General Smelting Company of Canada Limited, the only asset of which is a 40% interest in Federated Genco Limited. Federated Genco produces lead, zinc and aluminum alloys from both primary and scrap metal and has contributed about \$92,000 to Mattagami's earnings in the first nine months of 1978 compared to \$184,000 in the comparable period of 1977.

Capital, Preproduction and Deferred Development Expenditures

The following table shows Mattagami's capital, preproduction and deferred development expenditures for the five years and nine months ended September 30, 1978:

	Nine months ended September 30, 1978	Years ended December 31,				
	(in thousands)	1977	1976	1975	1974	1973
Expenditures.....	\$2,500	\$11,200	\$9,300	\$16,400	\$13,600	\$4,100

Major projects included in these expenditures were underground development at the Lyon Lake Division and Mattabi orebody, expansion of the zinc reduction plant and additions to the fixed assets at the Mattagami and Mattabi mines. Expenditures during 1978 are expected to be approximately \$4.8 million.

Pending Legal Proceedings

Mattagami, Noranda Mines Limited and Orchan Mines Limited are among 15 defendants in an action instituted in the Superior Court of the Province of Quebec for the District of Montreal on or about November 25, 1976 by individual and groups of Cree Indians for damages of \$8,034,000 and injunctive relief in respect of alleged environmental contamination and other interference with alleged aboriginal and territorial rights of the Cree Indians in Northern Quebec. Mattagami is defending this action and believes it has a good defence on the merits.

Dividend Record

Mattagami has paid dividends on its outstanding shares for its last five fiscal years and for the nine months ended September 30, 1978 as shown in the following table:

	Nine months ended September 30, 1978	Years ended December 31,				
		1977	1976	1975	1974	1973
Per share						
Common.....	—	—	—	\$0.50	\$1.275	\$0.75(1)
Class A.....	\$0.10	\$0.90	\$1.00	\$0.80(2)	—	—
Class B.....	\$0.085	\$0.765	\$0.85	— (2)	—	—
Total						
Common.....	—	—	—	\$ 6,622,000	\$16,884,000	\$ 9,927,000
Class A.....	\$ 1,307,000	\$11,746,000	\$13,031,000	10,594,000(2)	—	—
Class B.....	29,000	163,000	213,000	— (2)	—	—
Total.....	<u>\$ 1,336,000</u>	<u>\$11,909,000</u>	<u>\$13,244,000</u>	<u>\$17,216,000</u>	<u>\$16,884,000</u>	<u>\$ 9,927,000</u>

NOTE: (1) Restated as a result of a two-for-one stock split in 1974.

(2) During 1975 Mattagami reclassified the 20,000,000 authorized common shares without par value as 20,000,000 Class A common shares without par value and created an additional 20,000,000 Class B common shares without par value.

Dividends of 10¢ per share have been declared on both the Class A common and Class B common shares for the fourth quarter of 1978 payable on December 14, 1978 to shareholders of record on November 14, 1978. The dividend on the Class B shares is payable out of 1971 capital surplus on hand.

Class A and Class B common shares are voting, convertible into one another on a share-for-share basis and rank equally in all respects save that dividends may be paid in whole or in part on the Class B common shares out of tax-paid undistributed surplus on hand or 1971 capital surplus on hand, as defined in the Income Tax Act (Canada).

MATTAGAMI LAKE MINES LIMITED
(Incorporated under the laws of Quebec)
 (No Personal Liability)
and Subsidiaries

Consolidated Balance Sheet
 (in thousands of dollars)

	September 30, 1978	December 31, 1977
Assets	(unaudited)	
CURRENT ASSETS:		
Cash and short-term investments.....	\$ 6,793	\$ 8,875
Marketable securities.....	5,415	5,415
Accounts and settlements receivable.....	15,877	14,071
Mine products.....	40,936	46,524
Materials, supplies and prepaid expenses.....	7,498	7,021
	<u>76,519</u>	<u>81,906</u>
FIXED ASSETS:		
Property, plant and equipment.....	115,064	114,077
Less accumulated depreciation.....	69,677	64,897
	<u>45,387</u>	<u>49,180</u>
Mining property and rights.....	3,872	3,903
	<u>49,259</u>	<u>53,083</u>
OTHER ASSETS:		
Investments.....	3,281	3,189
Preproduction and deferred development.....	25,702	24,932
Other.....	1,069	1,189
	<u>30,052</u>	<u>29,310</u>
	<u><u>\$155,830</u></u>	<u><u>\$164,299</u></u>
Liabilities		
CURRENT LIABILITIES:		
Bank loans and acceptances.....	—	\$ 16,845
Accounts payable and accrued liabilities.....	\$ 5,022	5,769
Income and mining taxes.....	5,361	4,588
Current portion of long-term debt.....	500	488
	<u>10,883</u>	<u>27,690</u>
LONG-TERM DEBT:		
6% bonds, maturing 1980.....	300	600
6½% debentures, maturing 1980.....	200	400
	<u>500</u>	<u>1,000</u>
MINORITY INTEREST IN SUBSIDIARIES.....	16,043	19,673
DEFERRED INCOME AND MINING TAXES.....	12,367	11,071
SHAREHOLDERS' EQUITY:		
Capital stock (note 2).....	6,664	6,664
Contributed surplus.....	1,787	1,787
	<u>8,451</u>	<u>8,451</u>
Retained earnings.....	107,586	96,414
	<u>116,037</u>	<u>104,865</u>
COMMITMENTS AND CONTINGENT LIABILITIES (note 5)		
	<u><u>\$155,830</u></u>	<u><u>\$164,299</u></u>

On behalf of the Board

(Signed) J. A. HALL, Director

(Signed) M. W. AIRTH, Director

(See accompanying notes to consolidated financial statements)

MATTAGAMI LAKE MINES LIMITED
(No Personal Liability)
and Subsidiaries

Consolidated Statements of Net Income and Retained Earnings
(in thousands of dollars)

	Nine months ended September 30,		Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited)						
NET INCOME							
Revenue from production.....	\$ 63,707	\$77,688	\$94,720	\$95,578	\$107,945	\$132,146	\$106,495
Expense:							
Costs of production.....	35,923	44,066	55,561	46,721	44,746	36,338	32,358
Administration and corporate.....	721	862	1,833	1,086	937	839	545
Exploration.....	1,233	1,608	2,000	1,993	1,489	1,244	843
Depreciation (note 4).....	4,957	5,109	6,847	6,293	5,872	6,958	6,616
Amortization (note 4).....	561	1,296	1,487	1,963	1,233	1,830	1,831
Interest.....	982	610	704	908	657	980	3,329
	<u>44,377</u>	<u>53,551</u>	<u>68,432</u>	<u>58,964</u>	<u>54,934</u>	<u>48,189</u>	<u>45,522</u>
Net operating income.....	19,330	24,137	26,288	36,614	53,011	83,957	60,973
Investment and other income.....	1,005	702	1,290	1,226	1,920	3,465	1,090
	<u>20,335</u>	<u>24,839</u>	<u>27,578</u>	<u>37,840</u>	<u>54,931</u>	<u>87,422</u>	<u>62,063</u>
Income and mining taxes: (note 3)							
Current.....	5,361	8,314	9,111	17,728	22,760	36,731	16,252
Deferred.....	1,296	3,665	3,340	2,107	3,375	150	—
	<u>6,657</u>	<u>11,979</u>	<u>12,451</u>	<u>19,835</u>	<u>26,135</u>	<u>36,881</u>	<u>16,252</u>
	13,678	12,860	15,127	18,005	28,796	50,541	45,811
Minority interest in net income of subsidiaries	1,170	2,625	3,479	3,777	4,417	10,432	12,283
Net income before extraordinary item..	12,508	10,235	11,648	14,228	24,379	40,109	33,528
Extraordinary item (note 3).....	—	—	—	757	—	—	—
Net income for the period.....	<u>\$ 12,508</u>	<u>\$10,235</u>	<u>\$11,648</u>	<u>\$14,985</u>	<u>\$24,379</u>	<u>\$40,109</u>	<u>\$33,528</u>
Earnings per share: (note 2)							
before extraordinary item.....	<u>\$0.94</u>	<u>\$0.77</u>	<u>\$0.88</u>	<u>\$1.07</u>	<u>\$1.84</u>	<u>\$3.03</u>	<u>\$2.53</u>
after extraordinary item.....	<u>\$0.94</u>	<u>\$0.77</u>	<u>\$0.88</u>	<u>\$1.13</u>	<u>\$1.84</u>	<u>\$3.03</u>	<u>\$2.53</u>
RETAINED EARNINGS							
Balance, beginning of period (note 3)...	\$ 96,414	\$96,675	\$96,675	\$94,934	\$87,771	\$64,546	\$40,945
Net income.....	<u>12,508</u>	<u>10,235</u>	<u>11,648</u>	<u>14,985</u>	<u>24,379</u>	<u>40,109</u>	<u>33,528</u>
	108,922	106,910	108,323	109,919	112,150	104,655	74,473
Dividends (note 7).....	<u>1,336</u>	<u>9,933</u>	<u>11,909</u>	<u>13,244</u>	<u>17,216</u>	<u>16,884</u>	<u>9,927</u>
Balance, end of period.....	<u>\$107,586</u>	<u>\$96,977</u>	<u>\$96,414</u>	<u>\$96,675</u>	<u>\$94,934</u>	<u>\$87,771</u>	<u>\$64,546</u>

(See accompanying notes to consolidated financial statements)

MATTAGAMI LAKE MINES LIMITED
(No Personal Liability)
and Subsidiaries

Consolidated Statement of Changes in Financial Position
(in thousands of dollars)

	Nine months ended September 30,		Years ended December 31,				
	1978	1977	1977	1976	1975	1974	1973
	(unaudited)						
WORKING CAPITAL AT BEGINNING OF PERIOD	\$54,216	\$57,393	\$57,393	\$56,448	\$58,654	\$57,827	\$26,992
FUNDS PROVIDED:							
From operations:							
Net income before extraordinary item...	12,508	10,235	11,648	14,228	24,379	40,109	33,528
Minority interest in net income of subsidiaries.....	1,170	2,625	3,479	3,777	4,417	10,432	12,283
Charges not requiring funds:							
Depreciation and amortization.....	5,518	6,405	8,334	8,256	7,105	8,788	8,447
Deferred income and mining tax.....	1,296	3,665	3,340	2,107	3,375	150	—
	20,492	22,930	26,801	28,368	39,276	59,479	54,258
Stock options exercised.....	—	—	—	43	—	6	140
Other, net.....	120	269	(40)	1,254	(420)	(725)	(409)
Total funds provided.....	20,612	23,199	26,761	29,665	38,856	58,760	53,989
FUNDS USED:							
Property, plant and equipment, net.....	1,133	2,260	2,824	3,249	8,950	11,544	3,734
Preproduction and deferred development..	1,331	6,133	8,333	6,021	7,453	2,098	399
Repayment of long-term debt.....	500	500	500	500	—	25,300	8,593
Dividends.....	1,336	9,933	11,909	13,244	17,216	16,884	9,927
Minority interest in dividends of subsidiaries.....	4,800	6,000	6,210	5,245	7,279	2,062	—
Minority interest in advances repaid by subsidiary.....	—	—	—	417	—	—	—
Increase in investments.....	92	184	162	44	164	45	501
Total funds used.....	9,192	25,010	29,938	28,720	41,062	57,933	23,154
Net increase (decrease).....	11,420	(1,811)	(3,177)	945	(2,206)	827	30,835
WORKING CAPITAL AT END OF PERIOD.....	\$65,636	\$55,582	\$54,216	\$57,393	\$56,448	\$58,654	\$57,827

(See accompanying notes to consolidated financial statements)

MATTAGAMI LAKE MINES LIMITED
(No Personal Liability)
and Subsidiaries

Notes to Consolidated Financial Statements

(Information as at September 30, 1978 and for the nine months ended September 30, 1978 and September 30, 1977 is unaudited).

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Mattagami Lake Mines Limited is a public company incorporated under the laws of the Province of Quebec. The Company operates a zinc-copper mine in Quebec and is developing mines in Ontario. Its principal subsidiaries are Mattagami Refining Inc., which has a 51.67 percent undivided interest in an electrolytic zinc reduction plant in Valleyfield, Quebec, and Mattabi Mines Limited, which operates a zinc-copper-lead-silver mine in Ontario. The Company has contracted with a subsidiary of Noranda Mines Limited to act as its agent in selling its mine products.

These consolidated financial statements conform with accounting principles and practices generally accepted in Canada. A summary of the significant policies is as follows:

(a) Basis of financial statement presentation:

The consolidated financial statements include the accounts of Mattagami Lake Mines Limited and all its subsidiaries. A long-term investment of one of the Company's subsidiaries is accounted for on the equity basis.

(b) Investments:

Marketable securities are recorded at cost. Market value was \$5,598,000 at December 31, 1977 and \$6,650,000 at September 30, 1978.

(c) Inventories:

Mine products produced and purchased are valued at estimated net realizable value and revenue is recognized on the basis of production. Materials and supplies are valued at cost.

(d) Fixed assets:

Mine plant and equipment is recorded at cost and is being depreciated using a straight line method based on the estimated physical lives of the assets and the economic life of each mine. Mining properties and rights are recorded at cost and are amortized on a straight line basis over the estimated economic life of each mine. At present, the period of depreciation and amortization is over the period to 1982.

The zinc plant assets are being depreciated over a fifteen year period.

(e) Preproduction and deferred development:

The costs of preproduction and development are deferred until the assets are utilized in production and are then amortized on a straight line basis over an appropriate period.

(f) Exploration expenditures:

Exploration expenditures are charged against current income unless they relate to properties from which production is reasonably certain, in which case expenditures are capitalized as preproduction and deferred development.

2. CAPITAL STOCK

(a) Authorized and issued—

Authorized capital stock consists of 20,000,000 Class A and 20,000,000 Class B common shares without par value. Shares of each class may be converted into shares of the other class at any time at the option of the holder. However, the combined issued and outstanding shares of both classes may not exceed 20,000,000. The Board of Directors may, subject to the provisions of applicable law, provide for payment in whole or in part of dividends on the Class B common shares out of tax-paid undistributed surplus on hand or 1971 capital surplus on hand, as defined in the Income Tax Act of Canada. In all other respects, the Class A and Class B shares rank equally. During 1977, the Income Tax Act of Canada was amended and the provisions of that Act dealing with tax-paid undistributed surplus on hand and 1971 capital surplus on hand are to be repealed as of December 31, 1978.

Shares issued and outstanding are summarized below:

	September 30, 1978	December 31, 1977
Class A.....	13,071,867	13,056,387
Class B.....	174,033	189,513
	<u>13,245,900</u>	<u>13,245,900</u>

(b) Stock options—

At September 30, 1978 and at December 31, 1977, options on 10,100 shares were outstanding under the Company's stock option plan at prices varying from \$11.66 to \$13.17 for periods up to 1980. No options were exercised during 1977 or the first nine months of 1978.

(c) Stock split—

During 1974, the Company effected a two-for-one split of its common shares and changed its authorized capital stock from 7,000,000 shares of \$1 par value to 20,000,000 shares of no par value. 1973 earnings per share have been restated on the subdivided basis.

3. INCOME AND MINING TAXES

(a) Exempt period of subsidiary—

Under the provisions of income tax legislation, no taxes were exigible on the income of Mattabi Mines Limited during the exempt period commencing August 1, 1972 and ending December 31, 1973. Mattabi had provided depreciation and amortization in its accounts during this period but had not claimed any amounts for income tax purposes. These amounts were included as deductions in computing income and mining tax expense in 1974. This had the effect of increasing 1974 consolidated net income by approximately \$1,650,000.

(b) Change in accounting policy—

Prior to 1974 the Company did not provide for income and mining taxes on the tax allocation basis. The change in accounting policy made in 1974 was given retroactive effect by restating opening 1973 retained earnings to reflect a cumulative charge of \$3,332,000. The effect of following different accounting policies in 1973 and 1974 was not material.

(c) Extraordinary item—

The extraordinary item in 1976 resulted from the recognition, in a subsidiary, of certain income tax benefits relating to prior years but not recorded until there was reasonable assurance that the company could utilize them.

4. FIXED ASSETS

(a) Property, plant and equipment—

Prior to 1976 certain of the mine plant and equipment was being depreciated on a straight line basis until 1978. In view of revised estimates of ore reserves made in 1976, amortization to income of the undepreciated balance at December 31, 1975 was extended. During 1976, the zinc plant expansion became operational and was integrated with the existing plant which, prior to 1976, was being depreciated on a straight line basis until 1981. The write-off period for the integrated zinc plant was therefore changed to fifteen years in 1976.

As a result of these changes in estimates, depreciation in 1976 was decreased by approximately \$1,260,000 and net income was increased by approximately \$800,000 or \$.06 per share.

(b) Mining properties and rights—

Prior to 1976 mining property and rights were not amortized. During 1976, the Company commenced to amortize these amounts and as a result, amortization increased by approximately \$730,000 and net income decreased by approximately \$380,000 or \$.03 per share in 1976.

5. COMMITMENTS AND CONTINGENT LIABILITIES

(a) Estimated capital expenditures approximate \$2,330,000 for the last three months of 1978 and \$12,373,000 for 1979.

(b) A subsidiary company has guaranteed certain mortgages of its employees for houses in the Township of Ignace. These guarantees amounted to approximately \$3,700,000 at September 30, 1978 and \$3,400,000 at December 31, 1977.

(c) The Company is one of fifteen defendants in an action for \$8,034,000 and an injunction which is being contested in the Superior Court of the Province of Quebec, for alleged environmental contamination and interference with aboriginal rights of Cree Indians in Northern Quebec. The Company is confident that no liability will arise as a result of this litigation.

6. TEMPORARY ECONOMIC CONTROLS

The Company is subject to, and believes it has complied with, the Anti-Inflation Act and Regulations which provide for restraints on prices, profit margins, compensation and dividend payments to shareholders.

7. SUBSEQUENT EVENTS

(a) Dividend declaration—

The directors have declared a dividend of 10¢ per share payable on the outstanding Class A and B Common shares on December 14, 1978 to shareholders of record November 14, 1978. The dividend on the Class B Common shares is payable out of 1971 capital surplus on hand.

(b) Proposed merger—

It is proposed that the Company merge with Noranda Mines Limited. Under the proposal the shareholders of the Company will receive one share of Noranda for each two and one-quarter shares of the Company held, either upon acceptance of a share exchange offer by Noranda or upon a distribution of the assets of the Company as part of winding up proceedings.

Auditors' Report

To the Directors of
Mattagami Lake Mines Limited
(No Personal Liability)

We have examined the consolidated balance sheet of Mattagami Lake Mines Limited (No Personal Liability) as at December 31, 1977 and the consolidated statements of net income and retained earnings and changes in financial position for the five years then ended and have obtained all the information and explanations we have required. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, and according to the best of our information and the explanations given to us and as shown by the books of the company, these consolidated financial statements are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the five years then ended in accordance with generally accepted accounting principles which, except for the change in accounting policy referred to in note 4, have been applied on a consistent basis throughout the period.

Toronto, Canada
February 8, 1978

(Signed) PEAT, MARWICK, MITCHELL & Co.
Chartered Accountants

PRO FORMA FINANCIAL STATEMENTS

It is proposed that Noranda Mines Limited ("Noranda") amalgamate with Orchan Mines Limited ("Orchan") and merge with Mattagami Lake Mines Limited ("Mattagami") in two separate transactions. Noranda has stated that it will proceed with each transaction independently of the other.

The following unaudited pro forma condensed consolidated balance sheets and statements of earnings have been prepared using the interim unaudited financial statements of the three companies as at September 30, 1978 (assuming the proposed amalgamation and/or merger took place as at that date) and for the nine months then ended (assuming the proposed amalgamation and/or merger took effect from January 1, 1978) to illustrate the three possible alternatives:

- (i) Amalgamation of Noranda with Orchan;
- (ii) Merger of Noranda with Mattagami; and
- (iii) Amalgamation of Noranda with Orchan and subsequent merger with Mattagami.

In preparing these statements the transactions have been accounted for on the purchase basis of accounting after giving effect to the plan of reorganization referred to in the Information Circular and the pro forma adjustments and eliminations set forth in the accompanying notes.

These pro forma financial statements should be read in conjunction with the separate financial statements and notes thereto of Noranda Mines Limited, Mattagami Lake Mines Limited and Orchan Mines Limited, all included elsewhere in this booklet.

The earnings and earnings per share are for the nine month period and may not necessarily be indicative of the results for a full fiscal year.

Amalgamation of Noranda Mines Limited with Orchan Mines Limited

Pro Forma Condensed Consolidated Balance Sheet

As at September 30, 1978

(in thousands)

(unaudited)

	Noranda Mines Limited	Orchan Mines Limited	Net pro forma adjustments and eliminations	Pro forma consolidated
			{ (1,423) (1)	
			{ (1,292) (2)	
CURRENT ASSETS	\$ 825,625	\$16,473	{ 2,592 (3)	\$ 841,975
			{ (1,305) (2)	
INVESTMENTS IN AND ADVANCES TO ASSOCIATED AND OTHER COMPANIES ..	413,464	2,034	{ (1,691) (3)	
			{ (12,442) (4)	400,060
FIXED ASSETS				
Property, buildings and equipment, at cost.....	1,614,129	30,380	{ 2,490 (3)	
			{ 3,960 (5)	1,650,959
Accumulated depreciation.....	(712,752)	(16,805)	{ (1,226) (3)	(730,783)
	901,377	13,575	{ 5,224	920,176
OTHER ASSETS.....	133,998	3,328	{ (324) (1)	137,002
	\$2,274,464	\$35,410	{ (10,661)	\$2,299,213
CURRENT LIABILITIES.....	\$635,732	\$1,894	{ (1,423) (1)	\$638,216
			{ 2,013 (3)	
DEFERRED LIABILITIES AND HOLD- BACKS PAYABLE.....	12,932	1,019	{ (324) (1)	13,627
TAXES PROVIDED NOT CURRENTLY PAYABLE.....	87,810	4,620	{ 19 (3)	92,449
LONG-TERM DEBT.....	580,789	—	{ 110 (3)	580,899
MINORITY INTEREST IN SUBSIDIARIES..	140,004	—	{ 24 (3)	139,923
			{ (105) (6)	
SHAREHOLDERS' EQUITY:				
Capital stock (note 9)	89,194	3,445	{ (3,445) (4)	
			{ 19,395 (5)	108,589
Retained earnings.....	739,981	24,432	{ (24,432) (4)	739,981
	829,175	27,877	{ (8,482)	848,570
Less: pro rata interest in shares held by subsidiary and associated companies.....	(11,978)	—	{ (363) (2)	
			{ (2,130) (7)	(14,471)
	817,197	27,877	{ (10,975)	834,099
	\$2,274,464	\$35,410	{ (10,661)	\$2,299,213

(See accompanying notes)

Amalgamation of Noranda Mines Limited with Orchan Mines Limited

Pro Forma Condensed Consolidated Statement of Earnings

For the nine months ended September 30, 1978

(in thousands)
(unaudited)

	Noranda Mines Limited	Orchan Mines Limited	Net pro forma adjustments and eliminations	Pro forma consolidated
Revenue	\$1,238,969	\$19,134	7,387(3)	\$1,265,490
Expenses:				
Cost of production and products sold	979,851	15,435	6,805(3)	1,002,091
Depreciation and development charges	61,336	1,479	198(5)	63,013
Exploration and research	16,911	—	—	16,911
Interest	54,992	157	147(3)	55,296
Income and production taxes	62,274	508	209(3)	62,991
Minority interest	14,540	—	52(6)(3)	14,592
	<u>1,189,904</u>	<u>17,579</u>	<u>7,411</u>	<u>1,214,894</u>
Earnings of Noranda	49,065	1,555	(24)	50,596
Share of earnings of associated companies	31,864	92	(849)(8)	31,107
Aluminum plant shutdown—abnormal costs	(11,718)	—	—	(11,718)
Gain on sale of assets	11,265	—	—	11,265
Earnings	<u>\$ 80,476</u>	<u>\$ 1,647</u>	<u>(873)</u>	<u>\$ 81,250</u>
Earnings per share (note 9)	<u>\$ 3.41</u>			<u>\$ 3.37</u>

(See accompanying notes)

Merger of Noranda Mines Limited with Mattagami Lake Mines Limited

Pro Forma Condensed Consolidated Balance Sheet

As at September 30, 1978

(in thousands)
(unaudited)

	Noranda Mines Limited	Mattagami Lake Mines Limited	Net pro forma adjustments and eliminations	Pro forma consolidated
			{ (8,043) (1)	
CURRENT ASSETS	\$ 825,625	\$ 76,519	{ (4,414) (2)	\$ 889,687
INVESTMENTS IN AND ADVANCES TO ASSOCIATED AND OTHER COMPANIES	413,464	3,281	{ (15,864) (2) (40,895) (4)	359,986
FIXED ASSETS				
Property, buildings and equipment, at cost	1,614,129	118,936	60,655 (5)	1,793,720
Accumulated depreciation	(712,752)	(69,677)	—	(782,429)
	901,377	49,259	60,655	1,011,291
OTHER ASSETS	133,998	26,771	—	160,769
	<u>\$2,274,464</u>	<u>\$155,830</u>	<u>(8,561)</u>	<u>\$2,421,733</u>
CURRENT LIABILITIES	\$ 635,732	\$ 10,883	(8,043) (1)	\$ 638,572
DEFERRED LIABILITIES AND HOLDBACKS				
PAYABLE	12,932	—	—	12,932
TAXES PROVIDED NOT CURRENTLY PAYABLE ...	87,810	12,367	—	100,177
LONG-TERM DEBT	580,789	500	—	581,289
MINORITY INTEREST IN SUBSIDIARIES	140,004	16,043	(523) (6)	155,524
SHAREHOLDERS' EQUITY:			{ (6,664) (4)	
Capital stock (note 9)	89,194	6,664	{ 135,797 (5)	224,991
Retained earnings	739,981	109,373	(109,373) (4)	739,981
	829,175	116,037	19,760	964,972
Less: pro rata interest in shares held by subsidiary and associated companies	(11,978)	—	{ (1,819) (2) (17,936) (7)	(31,733)
	817,197	116,037	5	933,239
	<u>\$2,274,464</u>	<u>\$155,830</u>	<u>(8,561)</u>	<u>\$2,421,733</u>

(See accompanying notes)

Merger of Noranda Mines Limited with Mattagami Lake Mines Limited

Pro Forma Condensed Consolidated Statement of Earnings

For the nine months ended September 30, 1978

(in thousands)
(unaudited)

	Noranda Mines Limited	Mattagami Lake Mines Limited	Net pro forma adjustments and Eliminations	Pro forma Consolidated
Revenue	<u>\$1,238,969</u>	<u>\$ 64,712</u>	<u>—</u>	<u>\$1,303,681</u>
Expenses:				
Cost of production and products sold	979,851	36,644	—	1,016,495
Depreciation and development charges	61,336	5,518	2,761 (5)	69,615
Exploration and research	16,911	1,233	—	18,144
Interest	54,992	982	—	55,974
Income and production taxes	62,274	6,657	—	68,931
Minority interest	14,540	1,170	(25) (6)	15,685
	<u>1,189,904</u>	<u>52,204</u>	<u>2,736</u>	<u>1,244,844</u>
Earnings of Noranda	49,065	12,508	(2,736)	58,837
Share of earnings of associated companies	31,864	—	(4,766) (8)	27,098
Aluminum plant shutdown — abnormal costs	(11,718)	—	—	(11,718)
Gain on sale of assets	11,265	—	—	11,265
Earnings	<u>\$ 80,476</u>	<u>\$ 12,508</u>	<u>(7,502)</u>	<u>\$ 85,482</u>
Earnings per share (note 9)	<u>\$ 3.41</u>			<u>\$ 3.17</u>

(See accompanying notes)

**Amalgamation of Noranda Mines Limited with Orchan Mines Limited
and Subsequent Merger with Mattagami Lake Mines Limited**

Pro Forma Condensed Consolidated Balance Sheet

As at September 30, 1978

(in thousands)

(unaudited)

	Noranda Mines Limited	Orchan Mines Limited	Mattagami Lake Mines Limited	Net pro forma adjustments and eliminations	Pro forma consolidated
				(9,466) (1)	
				(5,706) (2)	
CURRENT ASSETS	\$ 825,625	\$ 16,473	\$ 76,519	2,592 (3)	\$ 906,037
				(17,304) (2)	
INVESTMENTS IN AND ADVANCES TO ASSOCIATED AND OTHER COMPANIES ..	413,464	2,034	3,281	(1,691) (3)	346,447
				(53,337) (4)	
FIXED ASSETS					
Property, buildings and equipment, at cost	1,614,129	30,380	118,936	2,490 (3)	1,830,550
				64,615 (5)	
Accumulated depreciation	(712,752)	(16,805)	(69,677)	(1,226) (3)	(800,460)
	901,377	13,575	49,259	65,879	1,030,090
OTHER ASSETS	133,998	3,328	26,771	(324) (1)	163,773
	\$2,274,464	\$ 35,410	\$155,830	(19,357)	\$2,446,347
CURRENT LIABILITIES	\$ 635,732	\$ 1,894	\$ 10,883	(9,466) (1)	\$ 641,056
				2,013 (3)	
DEFERRED LIABILITIES AND HOLD- BACKS PAYABLE	12,932	1,019	—	(324) (1)	13,627
TAXES PROVIDED NOT CURRENTLY PAYABLE	87,810	4,620	12,367	19 (3)	104,816
LONG-TERM DEBT	580,789	—	500	110 (3)	581,399
MINORITY INTEREST IN SUBSIDIARIES ..	140,004	—	16,043	(604) (6) (3)	155,443
SHAREHOLDERS' EQUITY:				(10,109) (4)	
Capital stock (note 9)	89,194	3,445	6,664	155,192 (5)	244,386
Retained earnings	739,981	24,432	109,373	(133,805) (4)	739,981
	829,175	27,877	116,037	11,278	984,367
Less: pro rata interest in shares held by subsidiary and associated companies	(11,978)	—	—	(2,182) (2)	(34,361)
	817,197	27,877	116,037	(20,201) (7)	950,006
	\$2,274,464	\$ 35,410	\$155,830	(19,357)	\$2,446,347

(See accompanying notes)

**Amalgamation of Noranda Mines Limited with Orchan Mines Limited
and Subsequent Merger with Mattagami Lake Mines Limited**

Pro Forma Condensed Consolidated Statement of Earnings

For the nine months ended September 30, 1978

(in thousands)

(unaudited)

	Noranda Mines Limited	Orchan Mines Limited	Mattagami Lake Mines Limited	Net pro forma adjustments and eliminations	Pro forma consolidated
Revenue	<u>\$1,238,969</u>	<u>\$19,134</u>	<u>\$64,712</u>	<u>7,387 (3)</u>	<u>\$1,330,202</u>
Expenses:					
Cost of production and products sold	979,851	15,435	36,644	6,805 (3)	1,038,735
Depreciation and develop- ment charges	61,336	1,479	5,518	2,959 (5)	71,292
Exploration and research . .	16,911	—	1,233	—	18,144
Interest	54,992	157	982	147 (3)	56,278
Income and production taxes	62,274	508	6,657	209 (3)	69,648
Minority interest	14,540	—	1,170	27 (3) (6)	15,737
	<u>1,189,904</u>	<u>17,579</u>	<u>52,204</u>	<u>10,147</u>	<u>1,269,834</u>
Earnings of Noranda	49,065	1,555	12,508	(2,760)	60,368
Share of earnings of associated companies	31,864	92	—	(5,615) (8)	26,341
Aluminum plant shutdown — abnormal costs	(11,718)	—	—	—	(11,718)
Gain on sale of assets	11,265	—	—	—	11,265
Earnings	<u>\$ 80,476</u>	<u>\$ 1,647</u>	<u>\$12,508</u>	<u>(8,375)</u>	<u>\$ 86,256</u>
Earnings per share (note 9)	<u>\$ 3.41</u>				<u>\$ 3.14</u>

(See accompanying notes)

Notes to Pro Forma Financial Statements

(unaudited)

- (1) To eliminate intercompany receivables and payables and other balances of the combining companies.
- (2) To reclassify as investments in and advances to associated and other companies in certain marketable securities held by Mattagami and Orchan and eliminate shares of Noranda held by these companies.
- (3) To consolidate a company which becomes a subsidiary as a result of the reorganization that was previously an associate accounted for on the equity basis and reflect the related minority interest.
- (4) To eliminate Noranda's investment in Mattagami and Orchan.
- (5) To record capital stock of Noranda issued at \$35.00 per share as consideration for the shares of Mattagami and Orchan acquired. The excess of the consideration over the book value of the net assets acquired has been allocated to fixed assets and this excess is being amortized prospectively over the remaining useful lives of the assets in question.
- (6) To record acquisition of additional minority interest in a consolidated subsidiary.
- (7) To eliminate the additional pro rata interest in Noranda's shares held by associated companies as a result of the share exchanges.
- (8) To eliminate earnings of Mattagami and Orchan previously accounted for on the equity basis.
- (9) The effect of the proposed transactions on the issued capital stock of Noranda is summarized below:

	Noranda -Orchan	Noranda -Mattagami	Noranda -Orchan -Mattagami
	Shares		
Total Class A and Class B shares issued at September 30, 1978.....	24,612,086	24,612,086	24,612,086
Plus shares issued under proposed amalgamation and/or merger.....	554,143	3,879,911	4,434,054
Total.....	25,166,229	28,491,997	29,046,140
Less Noranda's proportionate interest in its shares held by subsidiary and associated companies (including 882,367 held prior to these transactions) .	950,678	1,442,790	1,517,674
	<u>24,215,551</u>	<u>27,049,207</u>	<u>27,528,466</u>

Noranda Mines Limited
P.O. Box 45, Commerce Court West
Toronto, Ont., Canada M5L 1B6

noranda

November 30, 1978

To the Shareholders:

Your support is requested for a plan for Noranda Mines Limited to merge with two associated companies, Mattagami Lake Mines Limited and Orchan Mines Limited. Noranda already has a substantial investment in these companies whose mines are a major source of supply of zinc concentrate for the zinc plant at Valleyfield, Quebec. Under one ownership more rational operations will be possible both at the mines and at the plant. Participating directly in the profits from these companies will improve Noranda's total cash flow.

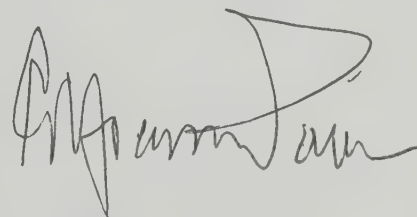
The Noranda group of companies is collectively a very important producer of zinc both as metal and as concentrate, employing about 4,200 Canadians directly in this part of the business. Most of the zinc is sold in world markets, earning export revenues for Canada of about \$200 million this year. Completing the merger will help make the Noranda group a more effective international competitor.

The plan contemplates that Noranda will amalgamate with Orchan and that the amalgamated company will also be called Noranda Mines Limited. Shareholders of Noranda will retain their share certificates which will represent the same number of shares of the amalgamated company. Shareholders of the other companies will receive one share of the amalgamated company for each six shares of Orchan or each two and one quarter shares of Mattagami.

A General Meeting of the shareholders of Noranda will be held on December 27, 1978 to consider and, if thought fit, to approve the amalgamation between Noranda and Orchan and to approve the creation of a new class of special shares which are to be used to implement the merger with Mattagami. Your directors have given careful consideration to the proposals and believe they are fair and reasonable and in the best interests of the shareholders of all three companies.

If you do not intend to be present at the General Meeting would you kindly complete and return the enclosed form of proxy.

On behalf of the Board,

A handwritten signature in dark ink, appearing to read 'Alfred Powis', written in a cursive style.

ALFRED POWIS
Chairman and President

Mines Noranda Limitée
P.O. Box 45, Commerce Court West
Toronto, Ont., Canada M5L 1B6

noranda

Le 30 novembre 1978

Aux Actionnaires:

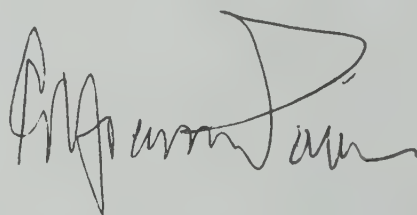
Nous sollicitons votre appui relativement au projet de fusion entre Mines Noranda Limitée et deux compagnies associées Mines Lac Mattagami Limitée et Mines Orchan Limitée. Noranda possède déjà un investissement appréciable dans ces compagnies dont les mines constituent une source très importante de concentrés de zinc pour l'usine de zinc de Valleyfield, Québec. Il sera possible d'exploiter les mines et l'usine de façon plus rationnelle si ces biens sont détenus par une seule entité. Le fait, pour Noranda, de participer directement aux profits de ces compagnies améliorera son fonds de roulement.

Il est prévu que Noranda se fusionnera avec Orchan et que la compagnie fusionnée sera elle aussi nommée Mines Noranda Limitée. Les actionnaires de Noranda conserveront leurs certificats d'actions qui représenteront le même nombre d'actions dans le capital-actions de la corporation fusionnée. Les actionnaires des autres compagnies recevront une action de la corporation fusionnée pour chaque bloc de six actions de Orchan ou chaque bloc de deux actions et un quart de Mattagami.

Une assemblée générale des actionnaires de Noranda sera tenue le 27 décembre 1978 pour étudier et ratifier, le cas échéant, la fusion entre Noranda et Orchan, et pour approuver la création d'une nouvelle classe d'actions spéciales qui seront nécessaires pour réaliser la fusion avec Mattagami. Les administrateurs de votre corporation ont étudié ces propositions avec une grande attention et ils les considèrent justes, raisonnables et conformes aux meilleurs intérêts des actionnaires des trois compagnies.

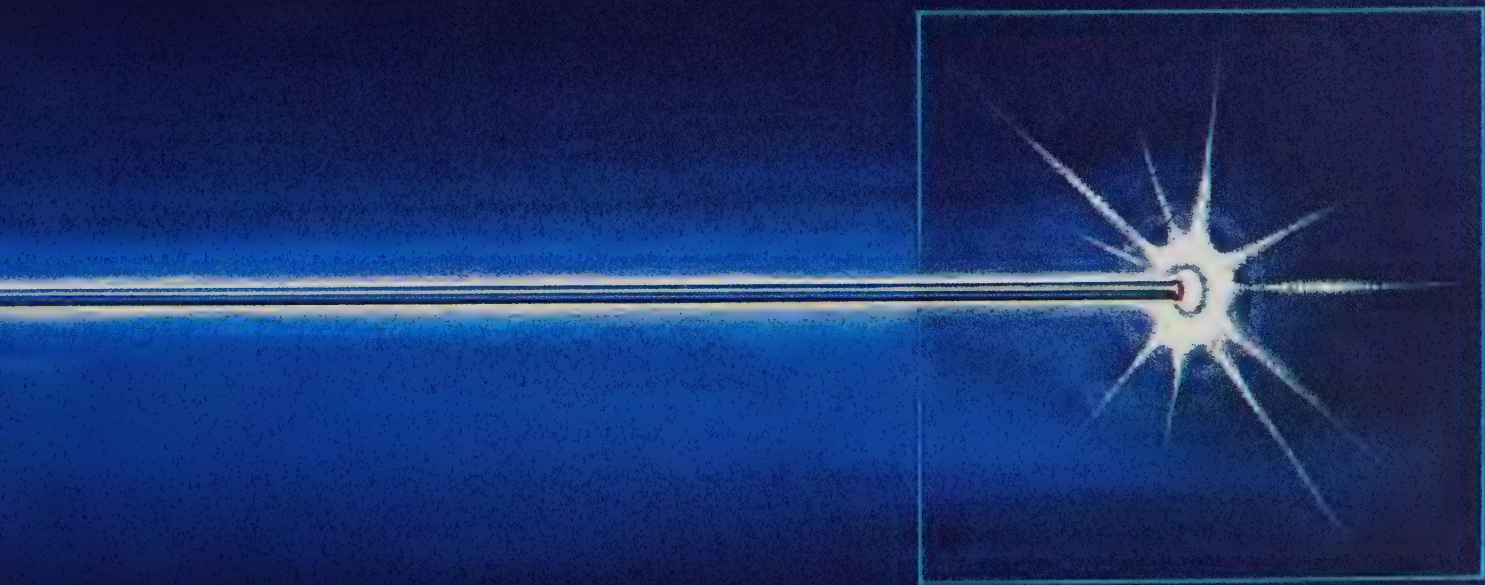
Si vous ne prévoyez pas être présent à l'assemblée générale, auriez vous l'obligeance de compléter et de nous retourner la formule de procuration ci-jointe.

Recevez, chers actionnaires, les salutations distinguées de votre conseil d'administration.



ALFRED POWIS
Président du conseil
et président

AR19



NORANDA IS THE SOURCE...

Out of the Noranda Group of Companies there flows an ever-widening stream of products and services.

Products for the home.
For industry. For commerce.
High technology products for
man's future.

As the following pages illustrate, Noranda products are remarkably varied and versatile in their application. But all over the world, wherever they are found, these products reflect the dedication to quality and excellence that is the mark of their source . . . **noranda**.

NORANDA IS THE SOURCE *for home building products*

LUMBER:
Northwood Pulp and Timber Limited
Fraser Inc.
James MacLaren Industries Inc.
MacMillan Bloedel Limited

ENEER:
Maniwaki Forest
Products Inc.

PANELBOARD:
Northwood Mills Ltd.
MacMillan Bloedel Limited

TURF and GARDEN
FERTILIZERS:
Nutrite Inc.

EXTENSION CORDS,
BATTERY CABLES,
IGNITION WIRES:
Carol Cable Company, Inc.

MAGNET WIRE:
Canada Wire and Cable Limited

OIL and GAS:
Canadian Hunter
Exploration Ltd.





SHAKES and SHINGLES:
Northwood Building Materials

ALUMINUM DOORS and WINDOWS:
Norandex Inc.

HEAT EXCHANGE TUBING:
Noranda Metal Industries Limited

BUILDING WIRE and POWER CABLE:
Canada Wire and Cable Limited

UTILITY POLES:
MacMillan Bloedel Limited

WELDED ALUMINUM TUBING:
Norandal USA, Inc.

COPPER and ALLOY
TUBING and STRIP:
Noranda Metal
Industries Limited

HARDWOOD FLOORING:
Maniwaki Forest
Products Inc.

SILVER:
Noranda Inc.

NORANDA IS THE SOURCE *for commercial and high technology products*



LEAD SHEET:
Federated Genco Limited

LASERS:
Noranda Enterprise Limited

ALUMINUM SIDING:
Norandex Inc.

STEEL WIRE ROPE:
Wire Rope Industries Ltd.

LEAD for Batteries:
Noranda Inc.

SELENIUM-
PHOTOCOPIER GRADE:
Noranda Inc.

FOLDING BOXBOARD,
CORRUGATED CONTAINERS:
Fraser Inc.
MacMillan Bloedel Limited

MIRRORS:
Carol Cable Company, Inc.

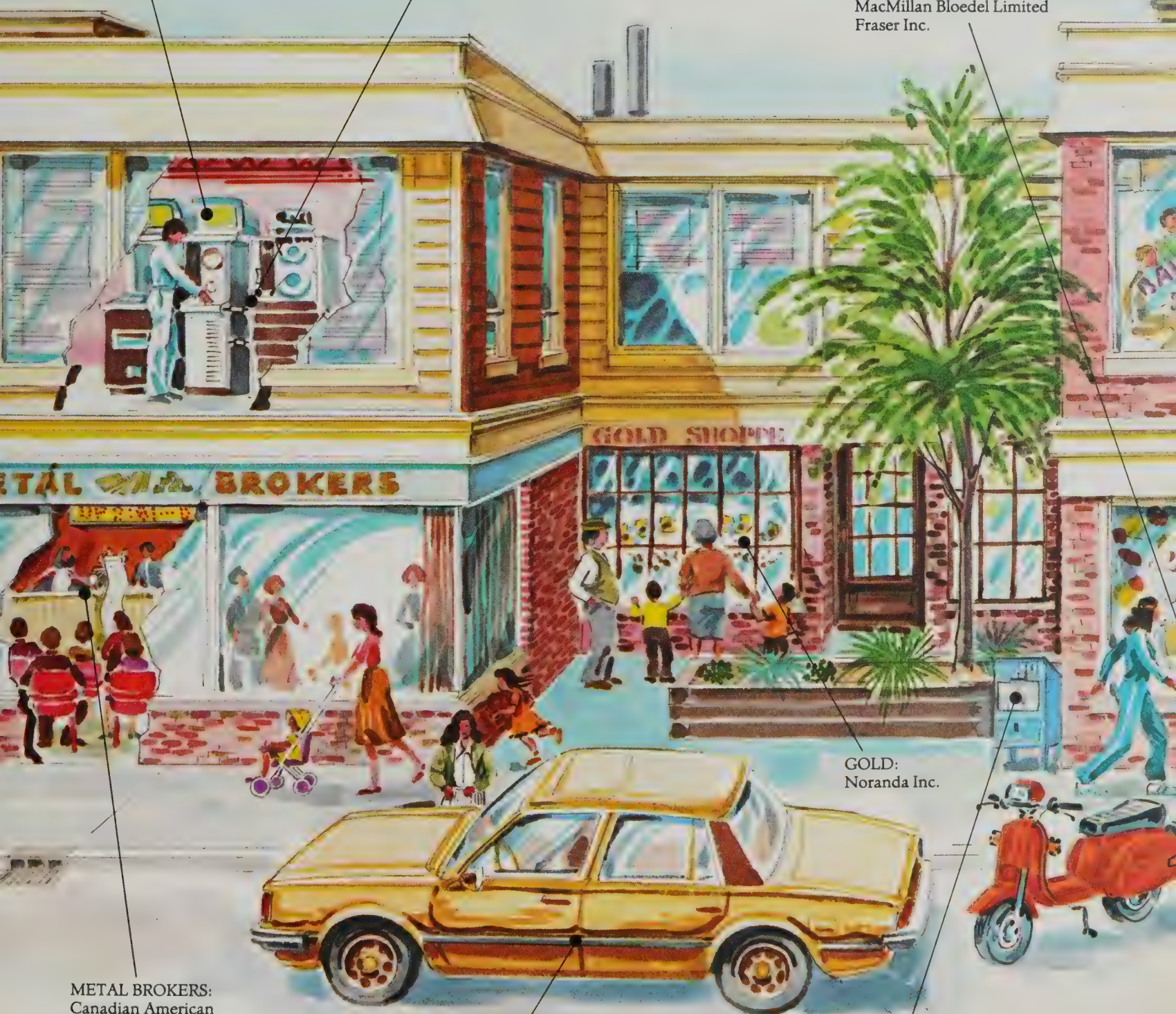


NICKEL and STAINLESS
STEEL TUBING for
Engine Components:
Nor-Sand Metals Inc.

HIGH TECH COMPUTER
SUPPORT PRODUCTS:
Noranda Enterprise Limited

FIBRE OPTICS:
Canstar Communications

FINE and GROUND-
WOOD PAPERS:
MacMillan Bloedel Limited
Fraser Inc.



METAL BROKERS:
Canadian American
Metal Company

GOLD:
Noranda Inc.

ZINC for Corrosion —
Resistant Coatings:
Noranda Inc.

NEWSPRINT:
MacMillan Bloedel Limited
James MacLaren Industries Inc.

NORANDA IS THE SOURCE for *industrial products*

TRANSMISSION CABLE:
Canada Wire and Cable Limited

ELECTROLYTIC
HYDROGEN PLANTS:
Electrolyser Inc.

SULPHURIC ACID:
Noranda Inc.

COPPER ROD:
Canada Wire and Cable Limited

REPROCESSING PRECIOUS
METAL SCRAP:
Micro Metallics Corporation
Noranda Inc.

GRINDING SLUGS:
Norcast Inc.

IRON CASTINGS:
Norcast Inc.

BRASS BAR:
Noranda Metal
Industries Limited





OIL and GAS:
Brenda Mines Ltd.

NICKEL and STAINLESS
STEEL TUBE:
Nor-Sand Metals Inc.

POTASH:
Noranda Inc.

ZINC,
LEAD CONCENTRATE:
Noranda Inc.

NETTING:
Wire Rope Industries Ltd.

CORDAGE:
Wire Rope
Industries Ltd.

ALUMINUM SHEET and FOIL:
Norandal USA, Inc.

ALUMINUM BILLETS:
Noranda Aluminum, Inc.

STEEL WIRE ROPE:
Wire Rope Industries Ltd.

PLYWOOD:
MacMillan Bloedel Limited
Northwood Mills Ltd.
James Maclaren Industries Inc.

PULP:
Northwood Mills Ltd.
MacMillan Bloedel Limited
Fraser Inc.
James Maclaren Industries Inc.

For Quality and Excellence
in Home Building, Industrial,
Commercial and High Technology
Products. . .

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noranda

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